

**Mental Health Intensive Case Management (MHICM)
in the Department of Veterans Affairs:
The Sixth National Performance Monitoring Report -
FY 2002**

FINAL DRAFT

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by

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Executive Summary

This is the sixth national report on the evaluation of the Department of Veterans Affairs Mental Health Intensive Case Management (MHICM) program, previously called “Intensive Psychiatric Community Care” or “IPCC”. MHICM is an innovative, experimentally validated approach to care for veterans with severe and persistent mental illness. Previous reports (Rosenheck et al., 1997; Neale et al., 1998-2002) have demonstrated that: 1) assertive community treatment is a cost-effective service for veterans with serious mental illness who are high users of VA inpatient resources; 2) MHICM benefits are maintained over the long-term (2-5 years); and 3) MHICM can be implemented and monitored in VA settings nationally. This report, which presents performance data for FY 2002, refers to early efforts and evaluations as “IPCC” and recent teams and data as “MHICM”.

The MHICM Program

VHA Directive 2000-034, issued on October 2, 2000, defined “Mental Health Intensive Case Management” and identified criteria for client entry, program operation and monitoring. MHICM teams seek to deliver high quality services that: 1) provide intensive, flexible community support; 2) improve health status (reduce psychiatric symptoms & substance abuse); 3) reduce psychiatric inpatient hospital use and dependency; 4) improve community adjustment, functioning, and quality of life; 5) enhance satisfaction with services; and 6) reduce treatment costs.

Extensive literature demonstrating that assertive community treatment (ACT) or intensive case management teams can improve clinical status and reduce psychiatric hospital use for people with serious mental illness has prompted researchers, practitioners and advocates to identify ACT as an essential evidence-based practice for this population (Drake et al., 2001, Phillips et al., 2001). MHICM teams modeled on ACT provide individualized services in the community for veterans with serious mental illness. MHICM services are organized around a core set of treatment elements described in VHA Directive 2000-034: 1) Intensity of contact; 2) Flexibility and community orientation; 3) Rehabilitation focus; and 4) Continuity and responsibility.

Dissemination and Team Structure

At the end of FY 2002, 72 MHICM teams were in operation, with 10 more in development. VHA Directive 2000-034 specifies MHICM performance and outcomes are to be monitored by the Northeast Program Evaluation Center (NEPEC), based in the VA Connecticut Healthcare System. Data are presented here for 3,566 veterans who received MHICM services in FY 2002 from 52 teams with 10 or more clients who had outcome data in that period. Of this group, 3,195 veterans (93%) had baseline interview data, 2,142 (63%) had follow-up interview data, and 2,560 (82%) had team report data. Another 405 veterans were admitted from pre-existing case management programs that converted to MHICM, with a reduced level of client monitoring data. Despite a substantial increase in the number of MHICM teams (+80%) and clients (+76%) since 1997, program cost per client (-7%; \$5,607) and client to staff ratio (+5%; 12.9 per FTEE) remained steady in FY 2002.

Client Characteristics

Overall, 91% of MHICM veterans had a diagnosis of psychotic illness at entry and they had spent an average of 86 days in the hospital in the previous year. Almost half of MHICM clients (48%) had been hospitalized for *more than two years* in their lives, with over two decades of illness since their first hospital stay. Virtually all MHICM clients (95%) received some combination of VA and/or

Social Security funds for their disability. A majority (56%) received VA compensation for a service-connected disability and half (51%) had a representative payee manage their funds. This group of veterans is clearly dealing with long-term illness and severe disability. Client characteristics have remained fairly stable since 1997, though pre-admission hospital days have declined by 32%.

Service Delivery

Altogether 87% of MHICM veterans were seen weekly or more by MHICM team staff; 61% were seen for more than one hour per week; and 88% received the majority of their care in the community. MHICM clients had an average of 72 face-to-face contacts with MHICM staff during FY 2002, or 1.4 face-to-face visits per week, per veteran. Client contacts in FY 2002 (1.4) were lower than 1997 (1.6) but slightly higher than FY 2001 (1.3). A total of 461 veterans (13%) were discharged from the program during the year and 106 veterans (3%) were transitioned to less intensive services after meeting criteria specified in VHA Directive 2000-034. On average, MHICM veterans had received services for 1,145 days or more than 3 years.

Outcomes

Veterans treated by MHICM teams showed average reductions in psychiatric hospital days of 35 days (72%) during their first six months in the program and proportionate reductions through 12, 18, and 24 month periods. All but three teams reduced hospital use for all time periods. Outcome analyses found statistically significant improvements of 10% on clinician-rated symptoms (BPRS mean change = -4.02, $t=-10.95$, $p<0.0001$) and client-reported symptom severity scores (mean change = -0.18, $t=-12.04$, $p<0.0001$). Client-reported housing independence increased by 13% (mean change = +0.39, $t=14.63$, $p<0.0001$) and quality of life improved by 10% (mean change = +2.43, $t=16.31$, $p<0.0001$) with MHICM treatment. MHICM veterans were significantly more satisfied with MHICM services relative to standard VA mental health care (+20%; mean change = +0.60, $t=20.51$, $p<0.0001$). This was reflected in higher satisfaction with overall VA mental health services at follow-up (+11%; mean change = +0.35, $t=10.50$, $p<0.0001$). FY 2002 client outcomes were close to FY 2001 levels and consistently higher (+13 to +83%) than 1997 values.

Adherence to Model Standards

Review of team reports and outlier values supports continued monitoring of team resources and performance and attention to staff training needs. VHA Directive 2000-034 established guidelines for MHICM team operation that have been translated into a set of minimum standards and monitored to identify performance outliers. Ten (19%) monitored MHICM teams met all eight minimum program standards in FY 2002, up from seven (15%) in FY 2001. A network planning initiative and quarterly circulation of monitoring data to network leaders, begun in FY 2001, has enhanced the implementation of MHICM teams nationwide.

Conclusion

Development of MHICM in VHA has followed a model sequence of problem identification, program development, evaluation and dissemination (Rosenheck and Neale, 2001; Rosenheck, 2001). Careful implementation and sustained monitoring have resulted in effective community-based services for veterans with serious mental illness, a highly vulnerable population. MHICM has been successfully disseminated to more than 70 facilities and site-by-site monitoring data show it continues to provide effective and efficient services to several thousand deserving veterans in great need.

Acknowledgments

We dedicate this Sixth National Performance Monitoring Report to the hundreds of clinical case managers and administrative staff who have made the delivery of MHICM services possible and opened doors of opportunity for thousands of veterans with serious mental illness. MHICM case managers and veterans contribute the information on which this series of reports is based. In particular, we would like to acknowledge the role played by members of MHICM Mentor-Monitor teams, who have demonstrated the effectiveness of community-based services in their own communities and worked with dozens of new teams to extend that experience to streets and ranges around the nation.

This report and the successful dissemination of MHICM owe much to ongoing support from Laurent Lehmann MD, Chief Consultant, and William Van Stone MD, Associate Chief Consultant for Psychiatry and Coordinator of SMI Veterans Programs, for the Mental Health Strategic Healthcare Group; Miklos Losonczy MD PhD and Steven Cavicchia PhD, Co-Chairs, and members of the SCMI Committee and its Consumer Council; and Paul Errera MD, who continues to advocate for community-based services for veterans with serious mental illness. Implementation of MHICM teams within VA has also benefited from efforts on behalf of assertive community treatment by individuals in other public sector agencies, including: William Knoedler MD, Deborah Allness MSSW, Mary Ann Test PhD and the Program for Assertive Community Treatment in Madison, Wisconsin; Claudia Wink-Basing MSW, Cheri Sixbey RN and the Assertive Community Treatment Association, Inc.; Neil Meisler MSW and Alberto Santos MD from the Medical University of South Carolina; Fred Frese PhD, Elizabeth Edgar RN, Dottie Sayer, Bonnie Banks, Jean Husted PhD and the Veterans Committee from the National Alliance for the Mentally Ill; and the Center for Mental Health Services at the Substance Abuse and Mental Health Services Administration (SAMHSA).

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Table of Contents

	Page
Executive Summary	i
Acknowledgments	iii
Table of Contents	v
Chapter 1. Mental Health Intensive Case Management in a Changing VA Healthcare System	1
Changes in VA Mental Health Care	1
Accountability and Monitoring	2
Case Management and Assertive Community Treatment	2
ACT Replication and Research	3
VA Demonstration (MHI, IPCC)	3
IPCC (MHICM) Program Objectives and Principles	4
Demonstration Findings and Performance Monitoring	5
MHICM Directive and Network Implementation	5
Team Development	6
References	7
Chapter 2. National Assessment of MHICM Program	13
VA Implementation of IPCC/MHICM	13
MHICM National Program Monitoring	14
Minimum Program Standards	16
Program Structure	17
Client Characteristics and Entry Criteria	19
Program Process (Service Delivery and Fidelity)	21
Clinical Outcomes	23
Unit Costs and Outlier Review	27
Adherence to Minimum Standards	28
Transition to Lower Intensity Case Management Services	28
Program Performance Trends: 1997 to 2002	30
Summary and Conclusions	31
References	32
Tables:	
Table 2-1. VA MHICM Program Monitors	35
Table 2-2. MHICM Programs through FY 2002	36
Table 2-3. Allocated Staff and Funds (Original Dollars)	37
Table 2-4. FY 2002 Program Expenditures	38
Table 2-5. Utilization of Staff Resources	39
Table 2-6. Clinical Staff and Caseload	40
Table 2-7. Demographic Characteristics of Veterans at Intake	41
Table 2-8. Entry Criteria Information	42
Table 2-9. Receipt of Disability Compensation or Pension Income	43
Table 2-10. Entry Criteria Information by Site	44

Tables (continued):

Table 2-11.	Clinical Status at Entry.....	45
Table 2-12.	MHICM Program Tenure.....	46
Table 2-13.	Pattern of Service Delivery	47
Table 2-14.	Outpatient Clinic Visits.....	48
Table 2-15.	Therapeutic Services (2 pages, A&B).....	50-51
Table 2-16.	Client-Rated Therapeutic Alliance.....	52
Table 2-17.	Fidelity to Assertive Community Treatment Model	53
Table 2-18.	VA Hospital Use: 183 Days Before and After Program Entry	54
Table 2-18a.	VA Hospital Use: 365 Days Before and After Program Entry	55
Table 2-18b.	VA Hospital Use: 548 Days Before and After Program Entry	56
Table 2-18c.	VA Hospital Use: 730 Days Before and After Program Entry	57
Table 2-19.	Brief Psychiatric Rating Scale	58
Table 2-20.	Symptom Severity	59
Table 2-21.	Global Assessment of Functioning	60
Table 2-22.	Instrumental Activities of Daily Living	61
Table 2-23.	Quality of Life.....	62
Table 2-23a.	Housing Independence	63
Table 2-24.	VA Mental Health Service Satisfaction.....	64
Table 2-25.	Satisfaction with VA MHICM Services	65
Table 2-26.	MHICM Unit Costs (Based on FY 2002 Expenditures)	66
Table 2-27.	Site Performance on MHICM Critical Monitors	67
Table 2-28.	Outliers for Team Structure Monitors.....	68
Table 2-29.	Outliers for Client Characteristics Monitors.....	69
Table 2-30.	Outliers for Clinical Process Monitors.....	70
Table 2-31.	Outliers for Client Outcomes Monitors.....	71
Table 2-32.	Outliers for Minimum Standards (2 pages, A&B)	72-73
Table 2-33.	Site Outlier Review Summary.....	74

Figures:

Figure 2-1.	Distance: MHICM Offices to Veteran Residence	75
Figure 2-2.	Travel Time: MHICM Offices to Veteran Residence	75
Figure 2-3.	Violent Behavior, Criminal Justice Involvement	76
Figure 2-4.	Suicidal Behavior, Hospitalization	76
Figure 2-5.	Housing Independence.....	77
Figure 2-6.	Work and Rehabilitation Activity.....	77

Appendices:

Appendix A.	VHA Directive 2000-034 (“MHICM Directive”).....	81
Appendix B.	MHICM Planning Material & Checklists	89
Appendix C.	Outlier Review Request and Form.....	113
Appendix D.	Legend for MHICM Performance Report Tables	117
Appendix E.	Case Management Visits for MHICM Veterans	127
Appendix F.	Case Management Visits for Non-MHICM Veterans	129
Appendix G.	MHICM Complex Class Veterans, FY 2002.....	133
Appendix H.	MHICM Program Monitor Trends, FY 1997-2002	137

Chapter One: Mental Health Intensive Case Management in a Changing VA Health Care System

Changes in VA Mental Health Care

The closing years of the twentieth century confronted the Department of Veterans Affairs (VA) and other public mental health systems with the challenge of providing appropriate, humane and efficient care to people with serious mental illness. Despite closing 40,000 psychiatric hospital beds between 1957 and 1988, VA relied heavily on inpatient treatment through the 1990's, spending over 70% of its mental health budget on hospital care as recently as FY 1996 (Rosenheck, 1997).

In 1995, the Veterans Health Administration (VHA) began a fundamental reorganization of its structure and services in pursuit of a more comprehensive, integrated healthcare system, with enhanced priorities of customer satisfaction, cost efficiency, and accountability. Manifestations of change have included the introduction of data-based approaches to care and management, decentralization of VA administrative and budget authority to 22 veterans integrated service networks (VISNs), reallocation of healthcare resources, and a shift of focus from inpatient services to outpatient, community-based and electronic modes of care.

In mental health, organizational changes have prompted dramatic reductions in inpatient service use. Between Fiscal Years 1994 and 2002, lengths of stay in general psychiatry inpatient programs declined by 51% (from 31 to 15 days), and 5,860 general psychiatry beds (61% of the 1994 total) were closed. These included 1,417 (76%) long-stay beds (occupied for more than 1 year) (Greenberg and Rosenheck, 2003). In FY 2002 alone, 581 general psychiatry beds (15% of the FY 2001 total), including 109 long-stay beds (24%), were closed. The effect of these changes was offset, to some degree, by expansion of outpatient and residential rehabilitation services. Between FY 1995 and 2002, the number of veterans receiving outpatient mental health services increased by 152,771 (27.7%) and the number of clinical contacts per treated veteran rose from 12.8 to 13.9 (8.6%). For the same period, mental health expenditures increased slightly, by \$55.6M (2.8%) but fell from 15.6% to 11.7% (-25%) as a percentage of all VA clinical costs (Rosenheck, 1996; Greenberg and Rosenheck, 2003).

The shift from inpatient to outpatient mental health care in VA would be expected to have its greatest impact on those with the most severely disabling mental illnesses, veterans who have traditionally relied on hospital treatment, especially long-term hospital treatment -- veterans who perhaps can least tolerate rapid change. People with serious mental illness are among the "least well off" (Rosenheck et al., 1998) and most vulnerable, commonly falling prey to homelessness, substance abuse, profound social isolation, and vocational dysfunction (Grob, 1994). Ethicists (Callahan, 1995; Boyle, 1995) and services researchers (Rosenheck, 1999; Schlesinger, 1995; Schlesinger and Mechanic, 1993) have emphasized that core values in our society urge us not to neglect the most vulnerable citizens, and to recognize that their vulnerability earns them special claim on public resources. Ethical and societal goals warrant careful attention to developing and monitoring of quality mental health services, particularly for the most needy veterans.

Accountability and Monitoring

VA healthcare increasingly emphasizes value, customer service, and accountability and provides specific impetus for implementation and careful monitoring of community-based care (Kizer, 1998). VA values clearly underscore the need for alternatives to inpatient hospitalization and enhanced attention to accountability and customer satisfaction. The Veterans Eligibility Reform Act of 1996 (Public Law 104-262, Section 104), furthermore, committed VA to maintain its capacity to provide specialized services for the most vulnerable veterans and mandates review of leadership reports on capacity by the VA Under Secretary for Health's Special Committee for the Care of Severely Chronically Mentally Ill Veterans (the "SMI Committee"). In 1999, the Under Secretary approved a recommendation by the SMI Committee to make intensive case management programs such as IPCC more widely available for veterans with serious mental illness (Recommendation 3, SMI Committee, 1999). In 2000, his successor issued a directive (VHA 2000-034) that defined "Mental Health Intensive Case Management" services for veterans with serious mental illnesses.

Case Management and Assertive Community Treatment (ACT)

For several decades, mental health clinicians and researchers, dismayed by the adverse consequences of precipitous State Hospital closures during the 1960's and 1970's, have sought to develop humane, health-promoting alternatives to long term hospital care for severely mentally ill persons in community settings. Case management services have emerged as a widely preferred alternative to fragmented outpatient care. In this approach, a specialist takes responsibility for facilitating access to and coordinating delivery of the full range of services needed by people with severe mental illness. General, or broker model, case management has been used for a variety of purposes ranging from cost cutting to improving clinical outcomes, and has only limited research support for its effectiveness. **Assertive community treatment (ACT)**, a model of integrated, intensive, and comprehensive services provided by a team of skilled clinical case managers in community settings, offers a more supportive approach for individuals with serious mental illness that has been carefully developed and evaluated.

ACT was first implemented as the Program of Assertive Community Treatment (PACT) in Madison Wisconsin over 25 years ago and evaluated in a series of experimental studies (Marx et al, 1973; Stein et al., 1975; Stein and Test, 1980a, 1980b; Weisbrod et al., 1980). ACT clinicians meet their clients in the community and provide comprehensive services, including social support, skills training, and medical care, wherever and whenever they are most needed (Allness and Knoedler, 1998; Stein and Santos, 1998). A team of up to 15 case managers provides a virtual "hospital without walls", replacing the custodial functions of an institution with personal support and therapeutic skills training in natural settings.¹

¹ A typical PACT team is staffed with a multi-disciplinary group of 10-15 clinicians who are configured to provide a comprehensive array of clinical and rehabilitation services every day (including evenings, weekends, holidays) and ensure 24 hour per day access for needed crisis intervention (Allness and Knoedler, 1998). A typical ACT team has 5-8 clinicians who, by necessity, provide less comprehensive services for fewer hours per week and rely on emergency/admitting staff or others to consult them about off-hour crises.

ACT Replication and Research

In the early 1980's, the success of the Madison PACT studies began to influence public policy. Wisconsin shifted inpatient treatment funds toward community-based services and Michigan funded Harbinger, the first replication of the PACT experiment (Mowbray et al., 1997; Mulder, 1985). By 1987, ACT principles had been adapted in demonstrations by numerous municipal and state mental health care systems, including Chicago, Philadelphia, Ohio, and New York (Test, 1992; Olfson, 1990; Burns and Santos, 1995; Deci et al., 1995). Replications varied with respect to the breadth and intensity of services, the accessibility and training of staff, and their effectiveness (Olfson, 1990; Stein, 1990; Deci et al., 1995; Essock and Kontos, 1995). Over the next ten years, at least 14 states developed ACT initiatives (Allness et al., 1997; Meisler, 1997). Rhode Island, Delaware and Texas established ACT as a standard "best practice" and required state-funded providers of services for the seriously mentally ill to develop ACT team services for their most troubled clients. In 1998, the Schizophrenia Patient Outcomes Research Team (PORT) highlighted ACT's effectiveness and relatively limited dissemination in its findings (Lehman et al., 1998). A year later, the National Alliance for the Mentally Ill (NAMI) made state funding for ACT services a central element of its anti-stigma advocacy campaign (NAMI, 1999). By 2001, most states reported the presence of an ACT team or active legislative/lobbying effort, with some (e.g., Florida, Virginia) funding multi-site state ACT initiatives (NAMI, 2002). Outside the United States, ACT has been adopted in Canada, Europe and around the world (Burns et al., 2001). Recent comparison of VA and non-VA treatments for schizophrenia found that VA clients were less likely to receive case management services (Rosenheck et al., 2001).

Experimental studies published over 20 years have reported that concentrating treatment resources in community-based ACT teams or intensive case management programs can result in improved clinical status of severely mentally ill patients at no additional cost (Bond et al., 1989; Hoult et al., 1984; Mulder, 1985; Stein and Test, 1980; Wasylenki et al., 1985; Weisbrod, Stein and Test, 1980). Other studies, however, have found case management to be associated with no clinical change and/or increased service utilization and cost (Bond et al., 1991; Curtis et al., 1992; Drake et al., 1998; Essock et al., 1998; Franklin et al., 1987; McFarlane et al., 1992). Literature reviews have concluded that intensive community treatment frequently reduces hospital use but does not always achieve net cost-savings or clinical improvement (Burns and Santos, 1995; Mueser, 1998; Olfson, 1992; Scott and Dixon, 1995). Most recent reviews have identified assertive community treatment as a clinically effective "evidence-based practice" when implemented correctly which can be cost-effective for clients who are high users of inpatient services (Phillips et al., 2001). A Cochrane Review concluded that ACT clients were more likely to stay in treatment and out of the hospital, to live more independently, and to be more satisfied with care than clients who received standard community or case management services (Marshall and Lockwood, 2002).

VA Demonstration: MHI, IPCC

VA initiated a demonstration program of intensive case management teams based on ACT principles at ten northeastern VA medical centers in 1987. Originally a regional demonstration (the Region 1 Mental Health Initiatives or MHI), VA's adaptation of assertive community treatment became known as Intensive Psychiatric Community Care (IPCC). A rigorous experimental study of this effort demonstrated the cost-effectiveness of this approach in VA (Rosenheck et al., 1995;

Rosenheck and Neale, 1998a). IPCC, while developed for the most troubled, high hospital users, was based on flexible operation guidelines that may be applied, with modifications, to other patient populations. Studies have shown that effective program performance requires adherence to the treatment model supported by training and performance monitoring (Rosenheck and Neale, 2001).

IPCC (MHICM) Program Objectives and Principles

IPCC (now MHICM) services are delivered by integrated, multidisciplinary teams and based on the Substance Abuse Mental Health Services Administration (SAMHSA) ACT standards. IPCC teams seek to deliver high quality services that:

- provide intensive, flexible community support;
- improve health status (reduce psychiatric symptoms & substance abuse);
- reduce psychiatric inpatient hospital use and dependency;
- improve community adjustment, functioning, and quality of life;
- enhance satisfaction with services; and
- reduce treatment costs.

To accomplish these objectives, IPCC teams adhere to four core treatment elements, most recently outlined in VHA Directive 2000-034:

- Intensity of Contact. High intensity of care primarily through home and community visits, with low caseloads (seven to fifteen veterans per clinician), allowing rapid attention to crisis and development of community living skills to prevent crisis in this exceptionally vulnerable population.
- Flexibility and Community Orientation. Flexibility and community orientation with most services provided in community settings and involving integration with natural support systems whenever possible (e.g., family members, landlords, employer).
- Rehabilitation Focus. Focus on rehabilitation through practical problem solving, crisis resolution, adaptive skill building, and transition to self-care and independent living where possible.
- Continuity and Responsibility. Identification of the team as a “fixed point of clinical responsibility” providing continuity of care for each veteran, wherever the veteran happens to be, for at least one year, with subsequent care subject to review of continuing need for intensive services.

Demonstration Findings

Analysis of data from the original multi-site MHI demonstration project yielded evidence that assertive community treatment principles could be adapted successfully within the VA healthcare system, that community-based treatment approaches could be effective in reducing hospital use and costs and improving clinical status, and that positive outcomes could be sustained or enhanced over extended time periods. Two-year demonstration findings (Rosenheck and Neale, 1998a) confirmed previous experimental research by showing significant reductions in hospital use and costs, and improvements in psychiatric status and social functioning, for veterans receiving IPCC services (Burns and Santos, 1995; Olfson, 1989; Scott and Dixon, 1995). Overall, average health care costs were \$4,860 (13%) less per patient per year for those treated in IPCC. The demonstration also illustrated the value of program monitoring that addresses facility and client characteristics, administrative mission and support, and model fidelity, all of which can substantially influence program development and impact (Rosenheck and Neale, 1998b; 2001).

Program Performance Monitoring

The resource intensity of IPCC services and the program's novelty for VA have warranted collection of data on client status, service delivery and utilization, and clinical and cost outcomes, through a national monitoring and evaluation system developed and managed by VA's Northeast Program Evaluation Center (NEPEC). Integration and feedback of national data have reinforced program accountability and maintained performance standards that have been shown in the scientific literature to be essential to program effectiveness.

The 1997 IPCC Report: 1) reviewed findings from a two-year experimental design evaluation of IPCC in VA; 2) presented extended follow-up data addressing long-term clinical and cost impact on a subset of patients whose progress was followed for up to five years; 3) described a novel training and performance monitoring program developed at the Northeast Program Evaluation Center (NEPEC) for dissemination of this model; and 4) summarized initial performance data from the program's national dissemination through March 31, 1997 (Rosenheck et al., 1997). Successive reports summarized program developments and performance data for veterans treated in Fiscal years 1998 through 2001 (Neale et al., 1999-2002). The present (sixth) report summarizes performance monitors and outliers for 3,566 veterans treated by 52 teams during FY 2002.

MHICM Directive and Network Implementation Plans

On October 2, 2000, VHA Directive 2000-034 (enclosed as **Appendix A**) described a new initiative to establish **Mental Health Intensive Case Management (MHICM)** teams throughout VHA, based on the established evidence-based practice of Assertive Community Treatment (ACT) (Phillips et al, 2001). IPCC, ACT, and other intensive case management services that met standards of service intensity and access were renamed as **MHICM**. The Directive defined the target population, standards and monitoring procedures for MHICM services. Shortly thereafter, VHA headquarters initiated a process through which each VISN would submit a detailed plan evaluating the need for MHICM in their network and describing specific steps to implement appropriate services. This initiative was the result of recommendations made by the Under Secretary for Health's Special Committee on the Treatment of Severely Mentally Ill Veterans (known as the SMI Special

Committee) to assure appropriate community care would be available for veterans in the face of substantially reduced inpatient capacity. When many of the initial network plans lacked sufficient detail, the request was reissued with additional guidance and specific response templates, with responses due at the end of September 2001.

Team Development

In 1997, VA facilities and Veterans Integrated Service Networks (VISN) began to express interest in implementing MHICM teams for veterans with serious mental illness or co-occurring mental illness and substance abuse disorders. Where feasible, NEPEC staff provided assistance in the form of information, material, linkage and technical support for sites with various levels of commitment to implementation of the model. To assist local leaders with planning and decision-making about community-based intensive case management services, NEPEC developed an **Implementation Planning Packet** in 1999. The packet contained descriptive materials and literature about MHICM, a brief bibliography, an outline of minimum program standards and expectations, and implementation/fidelity checklists addressing essential elements of MHICM and assertive community treatment. It is useful for planning a new MHICM team or comparing the structure of an existing case management team to the model. A copy of this material, included as **Appendix B** in this report, is available with MHICM monitoring forms at NEPEC web pages on the VA intranet (<http://vawww.nepec.mentalhealth.med.va.gov>) and internet (<http://www.nepec.org>).

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Chapter Two: National Assessment of MHICM Program Performance

VA Implementation of IPCC/MHICM

In 1993, responding to Congressional hearings and requests to enhance the priority of care for seriously mentally ill veterans within VA, the Director of Mental Health and Behavioral Sciences Service (Paul Errera, M.D.) submitted a “National Initiative for Seriously Mentally Ill Veterans” that featured the dissemination of Intensive Psychiatric Community Care (IPCC) programs. The VA National Planning Board approved the plan and Acting Under Secretary for Health agreed to provide \$1.5 million in FY 1994 and \$10 million in FY 1995 to establish new IPCC programs. The initial plan included additional funds for FY 1996 and FY 1997. All VA Medical Centers and freestanding Outpatient Clinics were eligible to apply for IPCC funds. Selection of new IPCC program sites involved several levels of review.

Between 1993 and 1995, IPCC teams were implemented at 30 additional sites around the country using national funds, with one quarter of available resources allocated to each of the four existing regions. On the basis of detailed implementation and outcome data from the original MHI demonstration, a standard resource package was designed to support operation of IPCC teams. This package consisted of \$325,000 for 6.25 FTE; \$15,000 in All Other funds; and \$30,000 (10% of personnel) for medical center administrative costs, for a total of \$370,000 recurring. Seventeen sites were awarded the standard package and six sites were funded at lower levels (3.5 FTE; \$200,000 PS; \$15,000 AO; \$20,000 OH) due to lower number of eligible veterans or rural location.

In support of the national dissemination, IPCC teams at Brockton, Canandaigua, Montrose and West Haven each received 1.0 FTE to allow experienced staff to act as mentor-monitors for 6-8 new IPCC teams. Over a two-year period, mentor teams participated in various planning and training activities, including: a 2-day planning meeting; weekly conference calls; four orientation and training sessions with clusters of teams; site visits; and ongoing formal and informal communication via mail, e-mail, fax, and telephone. Staff from each new program site attended a 1-day orientation and training session with NEPEC staff, mentors, and other new programs, then accompanied mentor staff to their home facility for several days of direct observation and training. Calls were held weekly or biweekly for 6-12 months and then tapered depending upon team status. All new teams maintained formal contact with their mentors for at least one year after orientation and training.

In addition to regular contacts with new program sites, mentor-monitors reviewed each team's progress via planning conference calls with NEPEC staff and other mentor-monitors (weekly: July 1994 to June 1996; quarterly: July 1996 to September 1997). Mentors also completed implementation checklists at six months and one year, reviewing with each team details of its configuration and operation. Finally, staff from each mentor team conducted at least one site visit of a FY 1994 program after nine to twelve months of operation. Site visits enabled mentors to observe the team when it was fully operational and to help the team resolve implementation difficulties.

Recent Implementation

In 1997, as VHA decentralized management and resources, individual facilities and Veterans Integrated Service Networks (VISNs) began to request NEPEC consultation, training and technical assistance to implement IPCC teams. In subsequent years, teams were started with local resources in Detroit (MI), Central Iowa, Milwaukee (WI), St. Cloud (MN), Lyons (NJ) and the Rocky Mountain Network (VISN 19), and with network resources in VA Healthcare System of Ohio (VISN 10) and the South Central VA Healthcare Network (VISN 16). Many other sites requested information and consultation, and some facilities implemented case management teams that varied in structure and intensity of services without NEPEC assistance. VHA Directive 2000-034 prompted additional requests for consultation and training, and a network planning process described in Chapter One.

Monitoring of the IPCC team at the Bronx was discontinued in 2000 after consultation revealed the program no longer operated within MHICM standards. Members of the Bronx IPCC team were reassigned to more traditional clinical and case management services. IPCC teams at Mountain Home, Salisbury and Spokane were merged with other programs, substantially reducing staff resources and caseloads and affecting program fidelity and outcomes. More recently, efforts have been made to rejuvenate clinical operations by the Salisbury team.

MHICM National Program Monitoring

National monitoring of MHICM program performance, specified in VHA Directive 2000-034, relies on: client interviews, clinician and team progress reports, and centralized VA databases. Sources of data include: (1) Monthly FTE / Caseload reports monitoring program productivity, workload, staff turnover, and admissions; (2) Structured clinical interviews with each veteran at entry (Initial Data Form-IDF) and (semi-) annually thereafter (Follow-up Data Form-FDF) addressing client characteristics, clinical status, functioning, and service use; (3) (Semi-)Annual clinical progress reports of IPCC services and outcomes, completed by the veteran's primary case manager; (4) VA automated inpatient and outpatient service use data; (5) Fidelity assessments of team conformity with MHICM and ACT program guidelines; and (6) Staffing and budget summaries completed for an annual site progress report. Evaluation forms have been abbreviated to reduce paperwork demands.

MHICM program evaluation and monitoring variables target four domains following the classic formulation of Donabedian (1980): 1) **Program structure**: utilization and configuration of allocated resources, and caseload levels; 2) **Client characteristics**: socio-demographic, disability level, and clinical status at entry; 3) **Program Process**: pattern of service delivery, therapeutic activities and alliance, and readmissions; and 4) **Outcomes**: client use of hospital services, symptoms, functioning, quality of life, and satisfaction with services.

The following section of the report presents data on each monitoring domain, from client interviews, clinician progress reports, and automated databases, for veterans with follow-up data between October 1, 2001 and September 30, 2002. **Table 2-1** lists 47 current MHICM program monitors, indicating for each its relevant domain and program objective, the table in which its data are presented in this report, and whether it is a "critical" program monitor (see below). Monitoring data are summarized in 33 tables and 6 figures. **Appendix D** summarizes the source and creation of all variables included in performance monitoring tables for this report. All MHICM teams participate

in national performance monitoring, including the use of specific DSS identifiers (#552 and #546) for clinical workload. Programs providing less intensive case management services are not monitored but workload is reported under DSS identifier #564. In FY 2001, VHA revised the Veterans Equitable Resource Allocation (VERA) reimbursement structure by adding veterans with 41 or more MHICM visits in a year to those for whom networks receive higher reimbursement.

Monitoring Team Performance

Premises on Which the Monitoring System is Based. MHICM care is still a relatively new clinical activity in VA, requiring considerable freedom for clinical innovation. Monitoring efforts are based on the assumption that rigid regulations or performance standards are not appropriate for this program in its current stage of development. Premature standardization might stifle the creative evolution of this new modality and fail to account for local variation. At the same time, since both VA and non-VA studies show that poor implementation is associated with low cost-effectiveness (Rosenheck and Neale, 1998b; Mueser et al., 1998; Phillips et al., 2001), it is important to monitor the program as completely and objectively as possible, identifying performance standards where they are suggested by research findings. Through this monitoring system we have sought to assemble a body of data that can guide national and network program developers and front line clinicians, as they implement MHICM teams over the coming years.

Critical Monitors: Statistical Norms vs. Practice Standards. Although a complete set of absolute practice standards has not been established for this program, monitoring data allow more than a description of the performance of individual sites and statistical norms have been computed for selected critical monitors. The distinction between statistical norms and formal practice standards is an important one. Practice standards are established by a consensus of professionals and represent directive guidelines for appropriate clinical practice. They codify how health care should be conducted. Statistical norms, in contrast, reflect how health care is practiced on average without specifying exactly what is and what is not acceptable practice. Although some practice standards have been established for the MHICM program through VHA Directive 2000-034, many aspects of the program have yet to be quantitatively standardized. Even in these areas, however, practice variation within the MHICM program can be measured and statistical outliers can be identified. Identification of statistical outliers must not be confused with the identification of practice standard violations. Statistical outliers are extremes on a continuum and, as such, deserve attention. However, without further exploration of specific circumstances, conclusions cannot be drawn regarding their exact meaning for program performance at a particular site.

FY 2002 Critical monitors. Nineteen of forty-seven current MHICM measures identified in Table 2-1 were selected as critical monitors that assess aspects of the program of special importance to fulfilling its mission². Most of these monitors have clear directionality (i.e. extremely large or small values suggesting a departure from program values and goals). Again, performance monitors should not be considered in isolation as absolute indicators of the quality of care delivered at any site. In most cases they can be used to properly identify statistical outliers, the importance of which must be determined by follow-up discussions or visits with the sites.

²Two monitors from the 1997 Report were dropped from national monitoring when the Readmission Review Form was made optional as part of paperwork reduction effective January 1, 1998. Client symptom and functioning monitors (each comprised of two measures) were separated, with no net change in monitors.

Identification of Statistical Outlier Sites. For each monitor, site data are presented in tabular form. At the bottom of a column, the average value across all veterans is presented, along with the mean and standard deviation for all sites. In the original report, sites were identified as outliers on a variable if the site value was more than one standard deviation from the mean. For subsequent reports, outliers were identified by a more complex statistical procedure involving risk adjustment for differences in baseline characteristics of veterans across sites as well as differences in sample size. First, simple change scores are created for each variable by subtracting Pre- (entry or baseline) values from Post- (latest follow-up) values, and computing site means. Second, baseline covariates are standardized with a mean of zero by subtracting the mean from individual values and computing transformed means. Third, analyses of covariance are run for each outcome variable, with 13 baseline covariates and 2 time-in-program variables. Least-squares means adjusted for covariates are computed for each site and t-tests are run comparing the adjusted means from each site with the median site value. Sites that are statistically different from the median site (p value <0.05) in the **undesired** direction are identified in Tables 2-6 to 2-25 with a shaded value. Sites that differ significantly from the median in the **desired** direction are identified with a bold underlined value. The performance of these sites is significantly different from the median site after adjusting for differences in veteran characteristics at entry and duration of program involvement.

It is important to note that outliers on critical monitors are being identified on a purely statistical basis. This is a more rigorous and conservative approach that, unlike previous use of standard deviations to identify outliers, accounts for site and other differences at baseline, baseline values of the variable in question, and length of time veterans are in the program. For variables where all site values are close together, no outlier may be identified. For variables where site values are skewed, outliers may be identified in one direction but not the other. For variables where site values are normally distributed, a balanced number of outliers may occur in both directions.

Minimum Program Standards

VHA Directive 2000-034 establishes procedural guidelines for MHICM teams that have been operationalized in eight **minimum program standards**. These complement the critical performance monitors. Minimum standards and threshold values include:

- Percent of veterans with psychotic diagnosis at entry (50% or more)
- Percent of veterans with 30 or more psychiatric inpatient days in year before entry (50% or more)
- Mean adjusted face-to-face contacts per week/veteran (1.0 or more)
- Ratio of veterans to clinical FTEE (mean caseload) (7:1 to 15:1)
- Percent of veterans for whom at least 60% of contacts occur in community setting (50% or more)
- Percent of veterans receiving psychiatric rehabilitation or skills training services (25% or more)
- Percent of veterans discharged from MHICM program (< 20%)
- Number of clinical service providers on the team (4.0+ FTEE).

Summary of Outliers. **Table 2-27** summarizes the number of Critical Monitor outlier values identified for each site in the four major evaluation domains: program structure, client characteristics, program process and outcome. Critical Monitor outlier values are presented separately by domain in **Tables 2-28 to 2-31**. Outliers for Minimum Program Standards are presented in **Table 2-32**. Data were made available to sites for their review and consideration, and discussed on national conference calls. NEPEC staff confer with individual sites concerning specific outlier variables as program evaluation and planning continue during the year.

Team Outlier Review. Prior to publication of this report, MHICM teams were asked to review draft tables and comment on critical monitors where their team value was identified as an outlier in the undesired direction. To facilitate review and comment, draft tables were posted on an intranet web site for direct access by MHICM teams. Outlier review responses are summarized in **Table 2-33**. The outlier review request and form are included in **Appendix C**.

Program Structure

MHICM Sites, Resources, and Expenditures

Fifty-two of the seventy-two MHICM teams that were in operation during FY 2002 and provided follow-up data on ten or more clients are listed in **Table 2-2**, characterized by site type and year of program start-up. Three established teams (Miami, Mountain Home, Spokane) and seventeen developing teams (Albuquerque, Baltimore, Eastern Kansas, Fayetteville NC, Hampton, Iowa City, New Orleans, Northern Indiana, Northport, Phoenix, Sheridan, St. Cloud, St. Louis, Tampa, Tomah, Tuscaloosa, Washington DC) had insufficient data to be included in this report. The original MHI demonstration programs began in 1987. Teams at Chicago (West Side), Miami and Portland, initiated in 1992, were funded primarily by reallocating resources from three original IPCC teams that were discontinued for incomplete implementation of the program model. Dissemination sites were funded in 1994 and 1995, as part of VA's National Initiative for Veterans with Serious Mental Illness. Four orientation and training sessions were conducted with thirty dissemination sites between August 1994 and July 1995. Miami staff attended the first orientation and training session. Later teams (1998 to present) were developed from local or network initiatives.

With decentralization of VA resources to 22 Veterans Integrated Service Networks in 1996, individual facilities and networks became the locus for funding and implementing new IPCC teams. The first locally funded and nationally monitored IPCC team was initiated by the John D. Dingle VA Medical Center in Detroit, Michigan in 1997. Additional teams were started with network resources by: Healthcare System of Ohio (VISN 10) (1998), South Central Healthcare Network (VISN 16) (2001), and Mid-Atlantic Healthcare Network (VISN 6) (2002) and with local resources by: Central Iowa Healthcare System (1999), Rocky Mountain Network (VISN 19) (2000), and Capitol Health Care Network (VISN 5, 2002). In each case, the MHICM Project Director and NEPEC evaluation staff collaborated with an established MHICM ("mentor-monitor") team to provide orientation, training, and ongoing technical assistance for new team members during start-up. Mentors were assigned to observe team operation and service delivery, and consult on clinical or administrative questions. Regular conference calls were held with members of new teams to support network communication about MHICM and community service needs of veterans with serious mental illness.

VHA policy in recent years has sought to diminish historical differences between General Medicine and Surgery (GM&S) and former Neuro-Psychiatry (NP) facilities. To illustrate the influence of facility type on the client population and therapeutic emphasis of individual MHICM teams, we continue to compare client characteristics for the two facility groups. As of 2002, the proportion of teams (18 of 52; 35%) and total veterans (1,623 of 3,566; 46%) located at NP sites has grown somewhat since the original study (30% of sites and 40% of veterans), reflecting greater numbers of veterans who meet MHICM criteria at NP sites.

Initial resource allocations to current MHICM sites are enumerated in **Table 2-3**. Resources for early teams are presented in 1988 and 1993 dollars, respectively, and exclude funds for local administrative support as none were provided until 1994. Original programs involved more diverse treatment models and staffing configurations. Initial site resources reported in annual progress reports bring the total funds for MHICM programs in the most recent fiscal year (2002) to more than \$17M, with 88% of funds going to cover personnel costs, and the remainder going to All Other expenses.³ Allocation data have become less meaningful with decentralization of healthcare funding.

MHICM program expenditures for FY 2002, derived from site-generated annual progress reports, are summarized in **Table 2-4**. These data appear to accurately reflect expenditures for program staffing and operation at most sites during that period, although it was not possible to verify program funds merged with other services in mental health service line consolidations. Program expenditures for the 52 MHICM teams included in this report totaled \$20.0M during FY 2002, with \$19.1M (95%) expended as Personal Service funds for 283.4 FTEE. Cost data from MHICM teams not included in this report brought the national expenditure total to \$24.5M. Average costs were \$384,532 per team, \$67,381 per filled FTE (salary plus benefits), and \$5,607 per veteran client. Additional unit cost data are provided in Table 2-26.

Table 2-5 presents the assignment and utilization of staff resources through FY 2002. Almost half (24 of 52; 46%) of the teams included in this report had 4.0 or more clinical FTEE providing clinical services in the community as mandated by VHA Directive 2000-034. Most MHICM positions (90%) were filled, although 16 sites (31%) had at least one vacancy of more than 6 months as of September 30, 2002. Eleven of twenty teams (55%) with extended vacancies in FY 2001, and seven of nineteen teams (37%) with extended vacancies in FY 2000, still had unfilled positions at the end of FY 2002, indicative of more enduring staff losses. In addition, MHICM staff at eleven sites (21%) had been detailed without replacement for more than six months to other units. On the positive side, a number of MHICM teams benefited from local and network contributions of additional staff resources.

Four of five staff in filled MHICM positions (232 of 283 FTEE or 82%) provided direct clinical services, primarily in community settings. This figure included 0.5 FTEE for team leaders, who were expected to provide a reduced level of community services, but excluded psychiatrists (about 9 FTE) (who generally devoted less than one day per week to MHICM veterans and rarely provided services in the community) and administrative-clerical support staff.

³ In recognition of administrative costs associated with support for an IPCC team, each dissemination site received an increment of 10%, based on Personal Service dollars, for unmonitored administrative use.

Caseload Levels

Clinical staffing levels and caseloads attained by each program for FY 2002 are shown in **Table 2-6**. Medical Support refers to the assignment of psychiatrists and nurses as members of the multidisciplinary team. Most teams maintained the active involvement of a psychiatrist (64%) and a nurse (96%) on the team. Clinical staffing levels varied considerably across sites, from fewer than 3.0 FTE at Brockton, Cincinnati, Columbus, Fort Harrison, Milwaukee, Palo Alto, San Francisco, Seattle and Togus to 8.0 or more FTE at Bedford, Canandaigua, Cleveland and North Chicago (including locally contributed resources). Thirty-seven teams (71%) maintained caseloads within the range specified by VHA Directive 2000-034 (7 to 15 clients per clinical FTE), with fourteen teams (27%) **above** the specified maximum (15:1) and one team **below** the minimum (7:1) as of September 30, 2002. Several teams maintained lower caseload levels or waiting lists to preserve the intensity of their services in the face of persistently unfilled clinical positions.

Client Characteristics

Demographics and Entry Criteria

Socio-demographic characteristics for 3,566 MHICM veterans are presented in **Table 2-7**, for all sites combined (Overall) and by Site Type (GM&S, NP). Current data are comparable to original MHI study values (Rosenheck and Neale, 1998a; Rosenheck et al., 1995), with greater proportions of female and Hispanic veterans in the current group. One in five veterans (20%) reported exposure to combat. Few veterans (11%) reported paid employment in the three years preceding program entry. Site Type differences are also consistent with those reported in the original multi-site study, with veterans from former Neuro-Psychiatric facilities more likely to be older and more disabled.

Tables 2-8 and 2-9 present Overall, Site Type, and Site data characterizing MHICM veterans at entry. Teams varied in their implementation of MHICM entry criteria. FY 2002 national MHICM program standards called for each veteran to meet the following criteria: 1) primary psychiatric diagnosis, especially a psychotic disorder; and 2) 30 or more days OR 3 or more stays of VA psychiatric inpatient hospitalization during the year preceding program entry. These criteria were selected and monitored to ensure that resource-intensive MHICM programs targeted veterans with the greatest need for intensive support and the greatest opportunity for VA cost savings. As in the original demonstration, the current overall population of MHICM veterans met target criteria defining veterans with serious mental illness who are high users of VA psychiatric resources. All program participants had a primary DSM-IV psychiatric diagnosis and 77% had been hospitalized for a month or more in the year preceding entry. One in five veterans (20%) was diagnosed with a co-morbid substance abuse disorder. System-wide decline in length of stay has reduced the proportion of veterans meeting utilization criteria. As a result, current MHICM veterans spent an average of 92 days (± 100 days) in the hospital in the year prior to entering the program, compared with 135 days {-32% difference} for the 1997 Report (Rosenheck et al., 1997) and 144 days {-36%} for the original demonstration (Rosenheck and Neale, 1998a). The percentage of veterans entering the program directly from a VA psychiatric inpatient unit has declined sharply (from 98% to 42%) since 1997. The number of veterans who met the 30-day hospital use criterion in the year prior to program entry has also declined, from 91% to 77%.

Disability Status

Disability income data, presented by site in Table 2-9, reveal extensive VA and Social Security support for psychiatric disabilities among MHICM veterans at entry. More than half of MHICM veterans (N=1,794 of 3,195; 56.2%) reported receiving VA compensation for a service-connected disability. Of these, 1,375 (76.6%) veterans were exclusively service-connected for a psychiatric disorder, 228 (12.7%) exclusively for a physical disability, and 191 (10.6%) for both. Another one in five (N=571, 18.2%) veterans reported receiving a non-service-connected disability pension. Many veterans reported receiving Social Security income (SSI: 15.5%; SSDI: 48.8%). Virtually all MHICM veterans (N=3,028; 94.8%) reported receiving some combination of VA and/or Social Security funds, and half (50.6%) said a representative payee managed their finances. Though the percentage of MHICM veterans who received VA compensation for service-connected disorders ranged from 30% to 87% across sites, the proportion of veterans receiving some form of disability support was consistently high, between 80% and 100%.

Program Adherence to Entry Criteria

Overall, MHICM teams demonstrated substantial adherence to entry criteria, presented in **Table 2-10**, despite facility differences on specific variables. Most veterans ($76.9\% \pm 23.3\%$) met the 30-day criterion for psychiatric hospital use in the year preceding entry. VHA service use data indicate that 39% of MHICM veterans also had 3 or more stays in the previous year. The vast majority of MHICM clients ($90.7\% \pm 8.4\%$) had a psychotic diagnosis (schizophrenia, schizoaffective disorder, other psychosis, bipolar disorder) at entry. One in five veterans ($19.7\% \pm 12.1\%$) had a secondary diagnosis of alcohol or drug abuse. Teams at Bedford and Albany exceeded the national level by targeting veterans with co-occurring diagnoses of mental illness and substance abuse. Nearly half of MHICM veterans ($48.2\% \pm 20.3\%$) had been hospitalized for two or more years but there was substantial site variation (range: 10.5% to 88.7%). Characteristic of psychotic disorder onset in early adulthood, veterans reported histories of illness spanning more than two decades since their first hospitalization (mean = 23.1 ± 3.1 years; range: 14.4 to 31.5 years).

Measures of clinical status at program entry, shown in **Table 2-11**, indicate levels of client symptoms and functional impairment commensurate with extensive hospitalization and long-term mental illness. More than half of MHICM veterans ($54.2\% \pm 12.2\%$) reported low-level instrumental functioning on at least one activity of daily life (managing household chores, shopping, finances, medications). Despite accommodations to inpatient life by many veterans prior to entry, clinician ratings of global functioning at program entry were low (GAF mean: 40.0 ± 5.5) and interviewer ratings of observed symptoms were relatively high (BPRS mean: 39.7 ± 6.7), reflecting moderate psychiatric impairment. (Note: BPRS ratings were re-scored on a 1-Not Present to 7-Extremely Severe scale to conform with scoring guidelines and current reporting conventions.) Fewer than half ($42.2\% \pm 27.1\%$) of MHICM clients entered the program directly from an inpatient unit in FY 2002 and veterans were more likely to have been discharged or referred by an outpatient service. This extended a trend from the first report (when 98% of clients entered directly from the hospital) reflecting dramatic changes in psychiatric lengths of stay within VA since 1997.

Program Process

Program Tenure

MHICM principles emphasize continuity, frequency, intensity, and community-based services for veterans with serious and persistent mental illnesses who have not responded well to traditional modes of treatment. With respect to continuity, MHICM programs are expected to serve as a fixed point of clinical responsibility for their veterans, offering services for at least one year and providing services for as long as clinically necessary. Continuity data in **Table 2-12** indicate that MHICM programs continue to meet this expectation. A modest number (N=461, 12.9%) of MHICM clients (N=3,566) were discharged during the twelve-month report period. One hundred and six additional veterans (3.0%) were formally transitioned to less intensive services by MHICM team staff, per criteria defined by VHA Directive 2000-034. Of those for whom services were terminated, 122 (26.5%) veterans left the area and 87 (18.9%) veterans died (83 from natural causes, 4 from self-inflicted injuries). The rest of discharged veterans asked to leave the program because they felt they no longer needed the services (N=90, 19.6%), formally graduated from the program (N=18, 4.0%), or for unspecified reasons (N=144, 31.2%). On average, veterans in the report sample (those with follow-up data between October 1, 2001 and September 30, 2002) had participated in the program for more than three years (mean=1,145 \pm 501 days) at the time of the latest follow-up interview.

Service Delivery and Alliance

Table 2-13 presents service delivery data provided by MHICM case managers through structured semi-annual case summaries. These data indicate MHICM has been implemented according to principles that have been shown to result in positive outcome (Rosenheck and Neale, 1998a; McGrew et al., 1994). With respect to frequency of contact, 86.6% (\pm 10.5%) of veterans were seen weekly or more and 52.1% (\pm 16.4%) received telephone contacts on a weekly or more frequent basis. Regarding intensity of contact, 61.4% (\pm 16.4%) of veterans were seen for more than an hour per week in the latest six-month period (after a mean of 3 years in the program). Pertaining to location of contact, 88.0% (\pm 10.7%) of veterans received more than 60% of their care in the community. FY 2002 values show gains in all measures of contact: face-to-face (+6.3%), telephone (+9.9%), community (+3.8%), and weekly service (+9.1%) over FY 2001 (Neale et al., 2002).

An important aspect of MHICM treatment involves the volume of direct, or face-to-face, contact between staff and clients, recorded as clinic stops in VA's centralized outpatient database, the National Patient Care Database (NPCD). MHICM teams record their workload under DSS Identifiers #552 (MHICM Community Visit) and #546 (MHICM Telephone Contact). Overall, as illustrated in **Table 2-14**, each MHICM client had an average of 59 (\pm 28.4) face-to-face visits by MHICM staff in the twelve months preceding September 30, 2002, plus 4 (\pm 5.2) telephone contacts, for a cumulative national total of 217,280 visits. Adjusting visits to reflect the portion of the year that clients were enrolled in MHICM (mean = 83% \pm 11) at each site amounts to about 72 (\pm 34.5) face-to-face visits over twelve months or 1.38 visits per week, per veteran. Including telephone contacts, each veteran received about 77 total contacts, or 1.5 contacts per week, in FY 2002. Since each veteran can receive only one clinic stop per day for a given service, and veterans may have multiple contacts during the day, these data likely under-represent the actual volume of contact provided by a MHICM team. Though beneath the program expectation of 2-3 contacts per veteran

per week, current data show an increase in visits per veteran of 7.8% over FY 2001, reversing a negative trend (-27%) since FY 1998. The gain was widespread, with more than two thirds (70%) of teams showing higher levels of contact in FY 2002 than in FY 2001. Teams cited greater familiarity with CPRS and attention to workload reporting as factors contributing to the change.

Tables 2-15 A&B depict the breadth of services provided by MHICM clinicians to program veterans during FY 2002. Most frequently, clients received supportive contact (97%), active monitoring (95%), medication management (82%), psychotherapeutic interventions (79%), and medical screening (75%). Less frequently, staff provided crisis intervention (66%), social or recreational activities (62%), rehabilitation services (53%) or housing support (48%). Substance abuse intervention (29%) was generally limited to veterans with specific needs related to dual diagnosis. Vocational support (19%) was the least used service with this severely disabled population. Overall, FY 2002 service levels increased slightly over FY 2001 values, with substance abuse (+12%), rehabilitation (+9%) and housing support (6%) services showing greatest gains.

Clinical case management models stress the importance of the therapeutic relationship between case manager and client, based on frequent and individualized contact, for improving clinical status (Harris and Bergman, 1993; Kanter, 1989). On the basis of earlier retrospective evidence linking therapeutic alliance with MHICM outcomes (Neale and Rosenheck, 1995), case manager-client alliance was monitored at all dissemination sites using seven-item versions of the Working Alliance Inventory modified to reflect case management work (Horvath and Greenberg, 1989). **Table 2-16** compares MHICM client perceptions of their current alliance with MHICM case managers at six months (Alliance mean: 39.4 ± 4.3) to adjusted ratings of their alliance with traditional inpatient / outpatient treaters prior to entry (Alliance mean: 35.9 ± 2.1). Overall, client ratings of alliance were almost 10% higher for MHICM staff than for traditional treaters, with veterans at 46 (88%) of 52 sites reporting higher levels of alliance with MHICM staff.

ACT Model Fidelity

Each MHICM team completed a measure of program fidelity to prescribed elements of assertive community treatment, the Dartmouth Assertive Community Treatment scale (DACTS; McGrew et al., 1994; Teague et al., 1998). The measure examines team conformity with ACT program criteria pertaining to human resources, organizational boundaries, service delivery, and substance abuse treatment. Previous research has found that fidelity scores, particularly team factors, correlate strongly with reductions in hospital use (McGrew et al., 1994), and distinguish between effective and ineffective treatment teams (Teague et al., 1995). Results for MHICM programs, displayed in **Table 2-17**, show that teams performed well on three of the four domains. The fourth domain of the scale pertains to substance abuse treatment, which is not a primary emphasis of MHICM treatment, and results vary significantly by team. Although secondary substance abuse diagnoses are present in 20-25% of MHICM veterans at entry, a primary substance abuse diagnosis is an exclusion criterion for most MHICM teams. The overall average DACTS score (mean = $4.0 \pm .3$) approximates those for other successful public sector ACT teams (Teague et al., 1998), despite including some teams that have shifted MHICM staff to other models of care. More than half (29 of 52, 56%) of MHICM teams achieved a score of 4.0 or more on the ACT Fidelity scale. [Note: VA scores include 23 of 26 original DACTS items. As a result, VA averages may be compared with non-VA programs but VA total scores are lower.]

Distance and Travel Time

For the semi-annual Clinical Progress Reports, MHICM clinicians estimated the distance and travel time between their offices and each veteran's residence. Follow-up reports indicated that most MHICM clients lived within 20 miles (N=1679, 65.3%) and 30 minutes (N=1676, 66.0%) of team offices (see **Figures 2-1 and 2-2**). At the same time, sizable numbers of veterans lived between 21 to 40 miles (N=593, 23.1%) or 30 to 60 minutes (N=733, 28.9%) away, and some lived more than 40 miles (N=398, 11.6%) or 1 hour (N=131, 5.2%) away. These data suggest that MHICM teams have substantially extended access to VA mental health services for veterans with serious mental illness through their outreach activities.

Clinical Outcomes

Reduction in VA Hospital Use

A primary objective of MHICM teams is to reduce veteran reliance on psychiatric inpatient services in favor of more adaptive and less costly treatment alternatives. As evident in **Table 2-18**, this objective was well met, with all teams but one showing pre- to post-entry reductions in mental health hospital days after six months. Several of the teams with the least impact on hospital days were based at outpatient clinics or facilities with few (or no) inpatient beds. On average, MHICM veterans (N=2,984) reduced their VA psychiatric hospital use from 49.0 days pre-entry to 13.6 days post-entry (mean reduction = -35.4 ± 28.8 days) during their first six months in the program. Overall, hospital use reductions of the same magnitude (72%) were observed for periods of 12 months (**Table 2-18a**: N=2,629, -62 days), 18 months (**Table 2-18b**: N=2,327, -89 days), and 24 months (**Table 2-18c**: N=2,089, -114 days)⁴. As in the original demonstration (Rosenheck and Neale, 1998a), NP teams continue to show greater reductions and cost savings relative to GM&S teams, although GM&S teams have been consistently effective in recent implementations.

One estimate of MHICM cost impact can be obtained by multiplying the mean reduction in days by the national average hospital per diem rate (FY 2002 inpatient psychiatry per diem = \$866) (Rosenheck and Greenberg, 2002). This method yields estimated overall cost reductions, per client, of \$50,839 at 6 months, \$53,689 at 12 months, \$76,970 at 18 months, and \$98,974 at 24 months, unadjusted for inflation. Although some reduction in hospital use is certainly attributable to expected client improvements over time and course of illness and to system-wide reductions in hospital use, present data suggest substantial cost reductions for veterans with serious mental illness who receive MHICM services.

⁴ Paired t-tests revealed overall reductions in VA mental health hospital days to be statistically significant at 6 months (N=2,912, mean difference=-39.65, t=-37.51, p<0.0001), 12 months (N=2,581, mean difference=-65.05, t=-32.26, p<0.0001), 18 months (N=2,286, mean difference=-92.86, t=-29.98, p<0.0001), and 24 months (N=2,055, mean difference=-119.76, t=-28.18, p<0.0001).

Improvement in Clinical Status

Consistent with the MHICM mission and objectives, monitored outcomes include improvements in health status, community functioning, and quality of life, as well as customer satisfaction. Outcome measures include ratings of:

- Symptoms by clinician: Brief Psychiatric Rating Scale {BPRS}, Overall and Gorham, 1962;
- Symptoms by client: Symptom Severity {GSI}, Derogatis and Spencer, 1982);
- Global functioning by clinician: Global Assessment of Functioning {GAF}, American Psychiatric Association, 1995, Endicott et al., 1976;
- Instrumental functioning by client: Instrumental Activities of Daily Living {IADL}, Fischer et al., 1996);
- Quality of life by client: Lehman Quality of Life Inventory {QOL}, Lehman, 1988);
- Satisfaction with VA mental health {VAMHSAT} and MHICM services {MHICM SAT} by client.

For each outcome measure, scores at program entry were compared with scores for the latest 6-month follow-up period in the report window (October 1, 2001 to September 30, 2002). Individual scores were adjusted for fifteen covariates including client characteristics, baseline values, and time in program. Median time in MHICM was 39 months. Data are presented in Tables 2-19 to 2-25.

Case manager ratings of 18 observed symptoms (BPRS) for MHICM clients, summarized in **Table 2-19**, showed an overall reduction of 10.4% from entry (N=3,181, mean sum: 39.7±6.7) to follow-up (mean sum: 35.7±11.5). Observed symptoms decreased at 41 of 52 sites (79%). Client ratings of severity for 30 symptoms on a 4-point scale (GSI: 1-not at all to 4-a great deal) (Fischer et al., 1996), in **Table 2-20**, yielded a similar overall reduction of 10.6% from entry (N=3,044, mean: 1.80±0.20) to follow-up (mean: 1.61±0.30), with lower 6-month ratings at 43 of 52 sites (83%).⁵

Reduction in Violent and Suicidal Behavior

MHICM veterans were asked whether they had thought or talked about harming someone, threatened anyone, or actually harmed anyone during their last 30 days in the community. Clients were also asked if they had been arrested or had spent a night in jail, for any reason, during the six months preceding the interview. Entry and follow-up responses are presented in **Figure 2-3**. At entry, one in six veterans (N=557, 18.0%) reported thoughts of violence, one in eight (N=402, 13.0%) talked about hurting someone, one in twelve (N=270, 8.7%) threatened someone, and one in twenty-five (N=123, 3.9%) committed a violent act. At follow-up, levels of violence were much lower across all categories, with one third fewer veterans reporting violent thoughts (N=245, 11.8%) and one half fewer veterans reporting violent talk (N=137, 6.6%), violent threats (N=77, 3.7%) or actions (N=34, 1.6%). The number of veterans reporting arrest (pre: N=276, 8.7%; post: N=67, 3.1%) or jail (pre: N=187, 5.9%; post: 45, 2.1%) also declined, by almost two thirds, at follow-up.

Using similar items, MHICM veterans were asked if they had thought or talked about harming or killing themselves, threatened or attempted suicide in their last 30 days in the community,

⁵Paired t-tests yielded significant differences reflecting improvement in both observed (N=2,096, mean difference: -4.02, t=-10.95, p<0.0001) and reported symptoms (N=1,925, mean difference: -0.18, t=-12.04, p<0.0001).

and whether a suicide attempt had resulted in hospitalization for medical reasons (see **Figure 2-4**). Though one in four veterans (N=714, 23.0%) reported thinking about suicide prior to entry, and one in eight (N=407, 13.0%) had discussed about it, less than one veteran in ten had threatened (N=217, 6.9%) or attempted (N=130, 4.1%) suicide. All veterans who attempted suicide were hospitalized for medical reasons. Among the latter group, all were hospitalized for medical reasons. At follow-up, the number of veterans in all of these categories had declined substantially, with fewer reports of suicidal thought (N=206, 9.9%), talk (N=112, 5.3%), threat (N=35, 1.7%), or attempt (N=11, 0.5%). Over a one-year period, 4 (0.1%) of the 3,566 veterans targeted in this report died from a completed suicide attempt. Another 83 veterans (2.3%) died from natural causes.

Global and Instrumental Functioning

Case manager ratings of client global functioning (GAF) are presented in **Table 2-21**. Adoption of the measure as a national performance monitor for VA mental health in 1998 prompted many facilities to re-train their staff in use of the measure, often resulting in a more conservative scoring range. As a result, GAF scores at follow-up scores were lower at half the sites (26 of 52 sites, 50%) and overall means decreased by 1.2% from pre- (N=3,190; mean: 40.0 ± 5.5) to follow-up (mean: 39.2, S.D.: 10.1), a statistically significant t-test difference (N=2,312; mean difference: -0.61, $t=-2.18$, $p<0.0295$). This compared with higher follow-up scores (25 of 40, 63%; mean increase: 3.5%) over six months in the first MHICM report (Rosenheck et al., 1997).

Client ratings of performance frequency (1-almost never to 5-almost always) for twelve specific daily skills (IADL), presented in **Table 2-22**, improved slightly (+1.9%) from entry (N=2,648, mean sum: 43.5 ± 3.9) to follow-up (mean sum: 44.2 ± 6.0). Three out of five teams (34 of 52, 65%) showed some level of improvement at follow-up and the overall t-test difference was statistically significant (N=1,430; mean difference: 0.80, $t=2.97$, $p<0.0030$).

Enhanced Quality of Life and Independence

Client ratings on five life satisfaction items (QOL; Lehman, 1988) using a 7-point scale (1-terrible to 7-delighted), reported in **Table 2-23**, indicated improvement (9.6%) from entry (N=2,947, mean sum: 25.9 ± 1.3) to follow-up (mean sum: 28.5 ± 2.1). Clients from 50 of 52 teams (96%) reported higher quality of life after participation in MHICM⁶.

Veterans were asked to indicate the number of nights in their most recent month in the community that they had spent in any of five living situations: a) **independent** (alone or with spouse, family, or friend in apartment or house); b) **minimally restrictive** (supervised apartment, boarding home, adult foster care); c) **moderately restrictive** (halfway house, treatment program, acute psychiatric diversion facility, treatment lodge, domiciliary); d) **extremely restrictive** (psychiatric hospital, skilled nursing facility, jail, or prison); or e) **homeless** (homeless or emergency shelter). In the month preceding their index hospital stay (or program entry), large groups of MHICM veterans reported living in independent (N=1708, 53.9%), extremely restrictive (N=850, 26.9%), or minimally

⁶Paired t-test results for client ratings of quality of life (N=1,877, mean difference: 2.43, $t=16.31$, $p<0.0001$), satisfaction with VA mental health services (multi-item: N=1,758, mean difference: 1.01, $t=17.34$, $p<0.0001$); single item: N=1,552, mean difference: 0.35, $t=10.50$, $p<0.0001$), and satisfaction with MHICM services (N=1,851, mean difference: 0.60, $t=20.51$, $p<0.0001$) were all significantly positive.

restrictive (N=749, 23.7%) residences (see **Figure 2-5**). Fewer veterans reported living in moderately restrictive (N=317, 10.0%) residences or having been homeless (N=101, 3.2%). At follow-up, the numbers of veterans who had been homeless (N=15, 0.7%) or in extremely restrictive residences (N=140, 6.4%) had declined by more than seventy-five percent. There was little change in the proportion of clients who reported living independently (N=1075, 49.2%) or in moderately restrictive residence (N=209, 9.6%), but sixty-two percent more veterans reported living in minimally restrictive residences (N=840, 38.4%). At the same time, client satisfaction with living arrangements and safety increased by 8.1% and 9.5%, respectively. These data reflect the fluidity of living arrangements for veterans with serious mental illness and team reliance on boarding home, foster care and supervised apartments to complement MHICM services in off-hours.

Using the items described above, a housing independence index was created to compare veteran-reported housing status before and after program entry. Client reported days spent at each level of housing independence were multiplied by a corresponding weight (Independent x 4, Minimally restrictive x 3, Moderately restrictive x 2, Extremely restrictive x 1, Homeless x 0). A comparison of client ratings, presented in **Table 2-23a**, revealed a statistically significant 13.0% gain in housing independence from pre- (N=3,148, mean = 2.9 ± 0.4) to post-entry (mean = 3.3 ± 0.6) (N=2,089; mean difference: 0.39, $t=14.63$, $p<0.0001$).

Work and Rehabilitation Activity

A minority of MHICM veterans (N=360 of 3,188; 11.3%) reported full- or part-time employment in the three years before program entry. An even smaller group (N=222, 7.0%) reported paid employment in the month before program entry (see **Figure 2-6**). Among all clients, paid work days averaged 1.0 day at entry and 0.8 days at follow-up. Among paid veterans, paid days averaged 13.9 days at entry and 13.4 days at follow-up. Fewer veterans reported work as volunteers (N=137, 4.3%) or participants in “work-for-pay” (N=131, 4.1%) or formal (N=69, 2.3%) vocational rehabilitation programs. Veteran reports of paid (N=121, 5.5%) and volunteer work (N=84, 3.8%) declined at follow-up, while participation in “work-for-pay” (N=119, 5.4%) and formal rehabilitation (N=71, 3.4%) programs increased. The relative weakness of vocational outcomes for MHICM teams may reflect: 1) the absence of team staff with vocational rehabilitation expertise; 2) severe levels of impairment among MHICM veterans; and/or 3) low incentive for work among MHICM clients who receive extensive VA and Social Security benefits for disability. Anecdotally, some MHICM staff reported their clients were “too disabled” or “unmotivated” to work and were often refused admission by vocational rehabilitation services.

Enhanced Satisfaction with VA Mental Health Services

Client ratings of the overall quality of VA mental health services (VAMHSAT, 3 items), presented in **Table 2-24**, showed a statistically significant 11.3% gain from pre- (N=2,863; mean: 9.2 ± 0.8) to post-entry (mean: 10.1 ± 0.9). Clients from 2 of 52 teams (3.8%) indicated lower satisfaction with VA mental health services at follow-up. Single-item comparison of client satisfaction with MHICM and general VA mental health services using a 5-point scale (0-very dissatisfied to 5-very satisfied), summarized in **Table 2-25**, found program participants favoring MHICM (N=2,935; mean: 3.7 ± 0.4) by 20% over general services (mean: 3.1 ± 0.3). One team showed a reduction in satisfaction after participation in MHICM. MHICM services, comprising the

bulk of psychiatric care for most program clients, were positively associated with gains in overall satisfaction with VA mental health services, up by 12.0% (mean: 3.5 ± 0.9) at the time of follow-up.

Unit Costs

As its name suggests, Mental Health Intensive Case Management involves providing highly intensive services to veterans who are among the most seriously ill and most expensive to treat in the VA system. The extent of care required by this group, and the setting where services are delivered, have prompted low recommended client-to staff levels that, in turn, contribute most heavily to personnel and program expenses. Using FY 2002 program expenditures and data from previously presented tables, **Table 2-26** outlines rough program costs for various units of service. For 3,566 veterans in FY 2002, MHICM services cost about **\$5,607 per veteran**, comparing favorably with original study data adjusted for inflation (Rosenheck, Neale, and Frisman, 1995) and FY 2001 cost (\$5,777). On the basis of filled positions (283.36 FTE) and FY 2002 personal service expenditures plus benefits (\$19.1M), the average annual cost was **\$67,215 per FTE** (salary plus benefits), lower than FY 2001 (\$69,500). Adjusting total MHICM visits to reflect a full year of service for each veteran (a cumulative total of **255,516** visits for a year), the cost was **\$78 per visit**. The 11.5% reduction in cost per visit (\$87 in FY 2001) reflects a greater increase in total contacts (+20.3%) than total veterans (+11.8%) that may reflect local improvements in workload reporting.

Outlier Review

MHICM teams were asked to review critical monitors and minimum standards where a value for their team was identified as an outlier (i.e., the team value failed to meet the minimum standard threshold, exceeded the site standard deviation in the undesired direction, or differed statistically from the median site in the undesired direction). Minimum standards were based on VHA Directive 2000-034 and critical monitor outliers were based on MHICM program guidelines and principles. For each outlier on a critical monitor or minimum standard, the team was asked to identify a reason for outlier status from among five options and to explain and address it. The Outlier Review request and form are included in **Appendix C**.

Negative outlier values are shaded in report tables and outlined (boxed) in summary tables. Critical monitor outliers are summarized by site across monitoring domains in **Table 2-27** (Site Performance) and within domains in **Table 2-28** (Team Structure), **Table 2-29** (Client Characteristics), **Table 2-30** (Clinical Process), and **Table 2-31** (Client Outcome). Minimum standards outliers are summarized by site in **Table 2-32 A&B**. Team outlier review responses are summarized in **Table 2-33** (Outlier Review Summary) and briefly described here.

Only two teams operating in FY 2002, Knoxville (TN) and Portland (OR), had no outlier values. The fifty remaining teams accounted for 197 negative outliers, virtually unchanged from the 200 outliers (for 48 teams) in FY 2001. Nine teams (17%) had five or more outliers, thirty percent fewer than in FY 2001 (13 teams). In order of frequency, outlier review responses from 50 teams indicated: (C) Problems in program implementation for which corrective action had been taken (Sites: 27 or 74% of responding sites; Responses: 52 or 38% of total outliers); (A) Legitimate team differences that did not conflict with national program goals (Sites: 26 or 50%; Responses: 37 or 27%); (D) Problems in program implementation for which corrective action was planned (Sites: 15

or 29%; Responses: 22 or 16%); (B) Local policies that conflicted with national program goals (Sites: 11 or 21%; Responses: 16 or 12%); and (E) Implementation problems for which no corrective action was planned (Sites 8 or 15%; Responses: 9 or 7%).

By domain, Team Structure outliers were most common (80 outliers at 42 sites), followed by outliers in Clinical Process (39 outliers, 28 sites), Clinical Outcome (18 outliers, 15 sites), and Client Characteristics (11 outliers at 10 sites). By monitor, outliers were most common for Team Size (28), Physician Support (19), Face-to-Face Contact (17), Unfilled FTE (16) and Caseload Size (15), and least likely for Psychotic Diagnosis (0), Location of Contact (1), Reported Symptoms (1), Nursing Support (2) and Global Functioning (2). Results corroborate team reports of problems maintaining staff resources to provide intensive services for veterans with serious mental illness and general adherence to ACT fidelity standards.

Adherence to Minimum Standards

VHA Directive 2000-034 established procedural guidelines for MHICM teams that were operationalized in eight **minimum program standards**. Outliers for MHICM minimum program standards (see page 16) are presented by site in Table 2-32A and B and reviewed here. Adherence was good or excellent (80% or better) for five standards and fair or poor (less than 80%) for the other three. Among standards with a higher adherence rate, all fifty-two teams (100%) reported that the majority of veterans they treated (Mean: 91%; Range: 66% to 100%) had psychiatric diagnoses that included psychosis (i.e., schizophrenia, schizo-affective or bipolar disorder, other psychosis). Fifty-one teams (98%) indicated that the majority of their clients (Mean: 88%; Range: 44% to 100%) received most MHICM clinical services in community settings. Similarly, forty-seven teams (90%) reported providing rehabilitation services (e.g., client skills training) to at least one quarter of their clients (Mean: 53%; Range: 14 to 100%). Forty-six teams (88%) met the criterion of discharging fewer than 20 percent of their clients per year (Mean: 13%; Range: 0% to 33%). Forty-four teams (85%) indicated that a majority of their clients (Mean: 77%; Range: 16% to 100%) had 30 or more psychiatric inpatient hospital days in the year preceding program admission.

Among standards with a lower adherence rate, thirty-seven teams (71%) maintained client to staff ratios between 7:1 and 15:1 (Mean: 12.9; Range: 5.6-26.5). Thirty-five teams (67%) had at least weekly face-to-face contact with their clients (Mean: 1.4; Range: 0.51 to 4.4). Twenty-four teams (46%) had 4 or more clinical FTEE available to provide community-based services (Mean: 4.5; Range: 1.0 to 12.5 FTEE). Non-adherence to the latter standards appeared to be largely a consequence of staff reallocation. Most of the teams that did not meet the staffing standard had been funded initially with four or more case manager positions but lost positions over the years when staff were detailed to other units, not replaced, or hiring was frozen. In many cases, staff losses coincided with higher caseloads and lower contact frequency. Ten of fifty-two MHICM teams (19%) met all eight minimum program standards in FY 2002, up from 7 teams (15%) in FY 2001.

Transition to Lower Intensity Case Management Services

VHA Directive 2000-034 (Appendix E) defined a procedure for transitioning MHICM clients to lower intensity services. Teams may begin to assess client readiness for a lower level of care, after one year of MHICM services, using five criteria: “clinically stable, not abusing addictive substances,

not relying on extensive inpatient or emergency services, capable of maintaining themselves in a community living situation, and independently participating in necessary treatments”. Clients who meet all criteria may be transitioned to less intensive MHICM services or to standard clinical services.

As mandated by the Directive, NEPEC began monitoring client transition to lower intensity services during FY 2000. Through FY 2002, 547 MHICM veterans had been transitioned to less intensive services: 67% to lower intensity services by the MHICM team, 20% to low intensity services elsewhere, and 10% discharged without additional services. At the time they were transitioned to low intensity services, 80% of veterans were assessed as clinically stable; 68% as not abusing addictive substances; 75% as not relying on extensive inpatient or emergency services; 68% as capable of maintaining themselves in a community living situation; and 63% as independently participating in necessary treatments. These data indicate that up to one-third of transitioned veterans did not fully meet VHA Directive 2000-034 criteria, though the majority continued to receive low intensity services from the MHICM team. Transitioned veterans continued to receive a range of clinical services, including case management (63%), day treatment (13%), outpatient mental health therapy (47%), outpatient medication management (68%), substance abuse services (8%), residential services (24%), vocational services (10%), inpatient care (11%), or nursing home care (7%). Only 28 veterans (5%) were later restored to regular MHICM services (most re-hospitalized) because of real or imminent risk to themselves or others, impaired ability to care for self, and unwillingness or inability to participate in needed treatments. Teams reported that 14 clients (3%) may have been at greater risk due to transition to less intensive services.

At the end of FY 2002, 359 veterans (10%) were receiving low intensity case management services from 38 MHICM teams (53%). During the year, 106 MHICM veterans (3% of 3,566) were transitioned to less intensive services: 69% to lower intensity MHICM services, 22% to low intensity services elsewhere, and 5% discharged without additional services. Three veterans were later restored to regular MHICM services because of real or imminent risk to themselves or others. When they were transferred, 85% of veterans were assessed as clinically stable; 75% as not abusing addictive substances; 83% as not relying on extensive inpatient or emergency services; 66% as capable of maintaining themselves in a community living situation; and 65% as independently participating in necessary treatments. Transitioned veterans continued to receive case management (55%), day treatment (15%), outpatient mental health therapy (50%), outpatient medication management (65%), substance abuse services (8%), residential services (33%), vocational services (8%), inpatient care (14%), or nursing home care (7%). One client was viewed as possibly at greater risk due to transition to less intensive services.

MHICM VERA Complex Class

Beginning in FY 2002, MHICM veterans were eligible for Complex Care reimbursement status under VERA (Veterans Equitable Resource Allocation) if they were registered in a MHICM program (participated in NEPEC program monitoring) and had 41 or more clinic stops (visits) under DSS Identifier 552 during the Fiscal Year. For FY 2002, average Complex Care funding under VERA was \$41,667 per veteran. FY 2002 VERA patient class data indicate that 2,147 MHICM veterans (49.3% of MHICM veterans at all sites) were included in the MHICM complex class reimbursement category. **Appendix G** presents totals for MHICM complex class veterans for FY 2002 by facility

MHICM Services for MHICM and Non-MHICM Veterans

MHICM visits are recorded in VA outpatient databases under DSS Identifier or Stop Code

552. Non-MHICM or general case management contacts (typically low intensity) are reported under identifier 564. FY 2002 workload data for MHICM veterans are summarized in **Appendix E** (see also Table 2-14) and for non-MHICM veterans in **Appendix F**. For the 52 teams covered by this report, **MHICM veterans** (N=3,288) received 193,864 regular MHICM (“high intensity”) visits in FY 2002, an average of 59 visits per veteran (Appendix E). MHICM visits represented 99% of total client services. A minority of MHICM veterans (N=852 or 24%), at eleven sites, received general case management visits (2,491), fewer than 3 visits per client. A large number of **Non-MHICM veterans** (N=2,562) were credited with MHICM visits, typically at facilities with MHICM teams. Contacts for these veterans (20,834 visits) made up a smaller portion (42%) of total case management services and averaged only 8 visits per veteran. These veterans were presumably seen for assessment or screening visits or clinic stop code 552 (MHICM visit) was incorrectly assigned. Only veterans who are fully enrolled or registered in the performance monitoring system are considered MHICM participants under VHA Directive 2000-034. A substantial group of non-MHICM veterans (N=2,915) received general case management services (27,103 visits), an average of 9 visits per veteran. Many of these contacts were reported by facilities without a MHICM team.

Program Performance Trends: 1997 to 2002

This is the sixth MHICM performance monitoring report, dating back to FY 1997. Beginning with this report, we will summarize trends in program performance by monitoring domain, comparing the latest results (FY 2002) with those for the first report (FY 1997) and the previous year (in this case FY 2001). These data are presented in **Appendix H**.

Data on **team structure** show a significant increase in the number of MHICM teams (+80%) and clients (+76%), as well as program expenditures (+90%) since 1997. Most of this change has come since October 2000 with implementation of VHA Directive 200-034. The number of MHICM staff positions increased more modestly (+28%). Positions remain filled at about the same level (+90%) despite a dip in recent years. The percentage of sites with at least one team member detailed to another service increased dramatically (+163%) and remains high. Cost per client (-7%) and client to staff ratio (+5%) have remained fairly stable since 1997.

Client characteristics data indicate an increase in the number of veterans from minority racial/ethnic groups (+11%) since 1997. Reflecting VHA’s shift toward outpatient services, client days in hospital have decreased (-32%) and the proportion of clients with 30 or more hospital days (-16%) and 2 or more years of lifetime hospitalization (-17%) have declined. The vast majority of MHICM clients continue to have a psychotic diagnosis (91%). Despite some targeting of clients with co-occurring substance use, that group has decreased 20% since 1997. Client participation in paid employment prior to entry has declined somewhat (-8%) while receipt of public support income has increased (+5%).

Service delivery data provide evidence that MHICM veterans continue to be contacted weekly (+2) if somewhat less frequently (-13%) than in 1997. FY 2002 data improved over 2001. More clients receive the majority of their services in community settings (+13%). The number of discharges has declined recently (-19%) as more veterans (currently 10%) are transitioned to less intensive services by the team. Veteran ratings of their therapeutic alliance with MHICM staff have increased (+25%), and team fidelity to assertive community treatment principles remains high (0%).

Client outcome data show sizeable increases, since 1997, in percentage reduction for both observed (+43%) and reported (+83%) symptoms at follow-up. Quality of life ratings have improved (+25%) and satisfaction with MHICM services has remained stable. Although client inpatient days prior to program entry continue to decline (-32% overall, -8% in the past year), the percentage reduction in client hospital days at follow-up has increased (+13%).

Consistent with VHA's commitment to expand access to community-based services, the MHICM program has grown since 1997. MHICM has benefited from network and facility support and a national initiative to implement VHA Directive 2000-034. Review of outliers and team reports continue to underscore the importance of attention to team and caseload size and staff training. Performance monitoring data show that MHICM teams continue to target veterans who need intensive support, providing them with quality services in community settings. After six years of MHICM performance monitoring, client outcomes are strong and satisfaction remains high.

Summary and Conclusions:

Development of Mental Health Intensive Case Management services in VA has followed a model sequence of problem identification, program development, evaluation, and dissemination (Rosenheck, 2001). Modeled on evidence-based, "best practice" programs in widespread use elsewhere in the nation (Rosenheck and Neale, 2001; Phillips et al., 2001), the MHICM program is a well-defined intervention that meets local needs within its operational parameters. A rigorous study demonstrated the program's cost-effectiveness and long-term benefits in VA settings, as well as the need for training and monitoring to assure proper implementation. Both VA and non-VA studies show program benefits are not likely to be attained unless team operation is carefully monitored (Mueser et al., 1998). MHICM has been successfully implemented at more than 70 VA healthcare systems and site-by-site performance monitoring data show the program continues to provide effective and efficient services to deserving veterans in great need.

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Table 2-1. VA MHICM Program Monitors

Monitoring Domain	Program Monitor	Unit	Report Table[^]	Program Objective	Critical Monitor
I. Structure	1. Total FTE allocated to date	#	2-3	1	
	2. Actual FTEE filled (September 30,2002)	#	2-5	1	
	3. % FTE utilized	%	2-5	1	
	4. Total funds (PS, AO, AS, TOT) allocated	\$	2-3	1	
	5. Actual funds expended (FY 2002)	\$	2-4	1	
	6. Medical support (.2MD, 1.0RN)	Y/N	2-6	1	*
	7. Clinical FTEE	#	2-6	1	+
	8. FTE unfilled or lagged GTE 6 months	Y/N	2-5	1	*
	9. FTE assigned to non-MHICM activities	Y/N	2-5	1	
	10. # Total veterans enrolled (9/30/02)	#	2-6	1	
	11. Caseload size (vet/staff: 7-15/Clinical FTE)	ratio	2-6	1	*+
II. Client	12. % Caseload entered as inpatient	%	2-8	1	
	13. % Caseload w/CLOS GTE 30 (yr of entry)	%	2-8/10	1	*+
	14. % Caseload w/psychotic diagnosis at entry	%	2-8/10	1	*+
	15. % Age at entry (by category)	%	2-7	na	
	16. % Minority status	%	2-7	na	
	17. % Dual diagnosis	%	2-8	na	
	18. Lifetime psych hospital use (% GT 2 yrs)	%	2-10	3	
	19. % Receiving public support (any source)	%	2-8/9	1	
	20. % Receiving VA compensation or pension	%	2-8/9	1	
	21. % Employed (FT/PT) in past 3 years	%	2-7	1	
	22. Global functioning at entry (% GAF GTE 50)	%	2-11	4	*
	23. IADL skills (% domains rarely/never)	%	2-11	4	
	24. Severity of illness (Mean BPRS score)	#	2-11	2	
III. Process	25. # New veterans added	#	2-12	1	
	26. % Clients terminated (Continuity)	%	2-12	1	*+
	27. % Clients seen weekly + (Frequency)	%	2-13	1	
	28. % Clients seen 61+mins/wk seen (Intensity)	%	2-13	1	*
	29. % Clients seen 61%+ community (Location)	%	2-13	1	*+
	30. # Face-to-face contacts/wk (Adj mean/wk)	#	2-14	1	*+~
	31. % Clients seen for rehabilitation	%	2-15	4	+
	32. % Clients seen for substance abuse	%	2-15	2	
	33. % Change therapeutic alliance	%	2-16	5	
	34. % Fidelity to ACT Model	%	2-17	1	
IV. Outcome	35. # Mean VA hospital days post-entry (6 mos)	#	2-18	3	*
	36. % Change in VA hospital days (6 mos)	%	2-18	3	
	37. \$ Estimated change in VA healthcare cost	\$	2-18	6	
	38. % Client symptoms improved (BPRS)	%	2-19	2	*
	39. % Client symptoms improved (BSI)	%	2-20	2	*
	40. % Client functioning improved (GAF)	%	2-21	4	*
	41. % Client functioning improved (IADL)	%	2-22	4	*
	42. % Client quality of life improved (QOLI)	%	2-23	4	*
	43. % Client satisfaction: VA mental health care	%	2-24	5	
	44. % Client satisfaction: MHICM vs. VA MH care	%	2-25	5	*
V. Cost	45. \$ Cost per veteran	\$	2-26	6	
	46. \$ Cost per FTEE	\$	2-26	6	
	47. \$ Cost per visit	\$	2-26	6	

*Critical MHICM monitor; + Minimum program standard; ~ Minimum standard replaces critical monitor standard.

[^]Chapter 2 summarizes table data; Appendix D provides a complete set of column definitions for all tables.

TABLE 2-2. MHICM PROGRAMS THROUGH FY 2002

VISN	SITE NAME ~	SITE CODE	SITE TYPE	MHICM START- UP YEAR
1	BEDFORD	518	NP	1995
1	BROCKTON	523A5	NP	1987
1	TOGUS	402	GM&S	1995
1	WEST HAVEN	689	GM&S	1987
2	ALBANY	528A8	GM&S	1987
2	BUFFALO	528	GM&S	1987
2	CANANDAIGUA	528A5	NP	1987
2	SYRACUSE	528A7	GM&S	1987
3	BROOKLYN	630A4	GM&S	1995
3	MONTROSE	620	NP	1987
3	NEW JERSEY	561	GM&S	1995
4	COATESVILLE	542	NP	1995
4	PITTSBURGH	646A5	NP	1994
5	PERRY POINT	512A5	NP	1994
6	SALEM	658	NP	2002
6	SALISBURY	659	NP	1994
7	ATLANTA	508	GM&S	1995
7	AUGUSTA	509	NP	1995
7	TUSKEGEE	619A4	NP	1995
8	GAINESVILLE	573	GM&S	1995
10	CHILLICOTHE	538	NP	1995
10	CINCINNATI	539	GM&S	1999
10	CLEVELAND	541	GM&S	1994
10	COLUMBUS	757	GM&S	1999
10	DAYTON	552	GM&S	1999
10	YOUNGSTOWN	541B2	GM&S	2001
11	ANN ARBOR	506	GM&S	1995
11	BATTLE CREEK	515	NP	1995
11	DETROIT	553	GM&S	1998
12	CHICAGO-WEST SIDE	537	GM&S	1992
12	MADISON	607	GM&S	1995
12	MILWAUKEE	695	GM&S	2001
12	NORTH CHICAGO	556	NP	1995
16	GULF COAST	520	GM&S	2001
16	HOUSTON	580	GM&S	2001
16	LITTLE ROCK	598	GM&S	2000
17	DALLAS	549	GM&S	1995
17	WACO	685	NP	1995
19	DENVER	554	GM&S	1995
19	FORT HARRISON	436	GM&S	2002
19	GRAND JUNCTION	575	GM&S	2000
19	SALT LAKE CITY	660	GM&S	2000
19	SOUTHERN COLORADO	567	NP	2000
20	AMERICAN LAKE	663A4	NP	1994
20	BOISE	531	GM&S	1995
20	PORTLAND	648	GM&S	1992
20	SEATTLE	663	GM&S	1995
21	PALO ALTO	640	GM&S	2002
21	SAN FRANCISCO	662	GM&S	1995
22	GREATER LOS ANGELES	691	GM&S	1994
23	KNOXVILLE	636A7	NP	1999
23	MINNEAPOLIS	618	GM&S	1995

~MHICM teams (N=20) with insufficient data to be included in this Report:
 Northport, Baltimore, Washington DC, Fayetteville (NC), Hampton, Tuscaloosa,
 Miami, Mountain Home, Northern Indiana, Tomah, St. Louis, Topeka, New Orleans
 Albuquerque, Phoenix, Sheridan, Spokane, Iowa City, Omaha, St. Cloud.

TABLE 2-3. ALLOCATED STAFF AND FUNDS (ORIGINAL DOLLARS)

VISN	SITE NAME	ALLOCATED FTE	PERSONAL SERVICE	ALL OTHER	ADMIN SUPPORT	TOTAL PROGRAM \$
1	BEDFORD	6.20	\$582,020	\$15,000	\$30,000	\$627,020
1	BROCKTON	10.50	\$392,315	\$52,006	\$0	\$444,321
1	TOGUS	3.50	\$200,000	\$15,000	\$20,000	\$235,000
1	WEST HAVEN	11.00	\$404,862	\$27,000	\$14,686	\$446,548
2	ALBANY	10.00	\$341,000	\$1,985	\$0	\$342,985
2	BUFFALO	8.50	\$273,000	\$12,000	\$0	\$285,000
2	CANANDAIGUA	11.60	\$343,052	\$42,844	\$0	\$385,896
2	SYRACUSE	4.30	\$174,671	\$5,200	\$11,500	\$191,371
3	BROOKLYN	6.20	\$300,000	\$15,000	\$30,000	\$345,000
3	MONTROSE	4.50	\$225,144	\$85,456	\$0	\$310,600
3	NEW JERSEY	7.70	\$562,527	\$23,977	\$26,000	\$612,504
4	COATESVILLE	6.20	\$300,000	\$15,000	\$30,000	\$345,000
4	PITTSBURGH	6.50	\$300,000	\$25,000	\$45,000	\$370,000
5	PERRY POINT	6.50	\$315,326	\$25,000	\$45,000	\$385,326
6	SALEM	4.20	\$300,020	\$0	\$0	\$300,020
6	SALISBURY	6.50	\$300,000	\$50,000	\$45,000	\$395,000
7	ATLANTA	5.20	\$260,000	\$15,000	\$26,000	\$301,000
7	AUGUSTA	6.20	\$288,052	\$15,000	\$28,805	\$331,857
7	TUSKEGEE	3.50	\$200,000	\$15,000	\$20,000	\$235,000
8	GAINESVILLE	5.20	\$282,500	\$15,000	\$26,000	\$323,500
10	CHILLICOTHE	6.20	\$300,000	\$15,000	\$30,000	\$345,000
10	CINCINNATI	4.00	\$130,000	\$9,000	\$0	\$139,000
10	CLEVELAND	6.50	\$300,000	\$25,000	\$45,000	\$370,000
10	COLUMBUS	4.00	\$130,000	\$9,000	\$0	\$139,000
10	DAYTON	4.00	\$130,000	\$9,000	\$0	\$139,000
10	YOUNGSTOWN	4.33	\$309,266	\$11,616	\$0	\$320,882
11	ANN ARBOR	5.20	\$240,000	\$15,000	\$24,000	\$279,000
11	BATTLE CREEK	6.20	\$300,000	\$15,000	\$30,000	\$345,000
11	DETROIT	9.30	\$325,000	\$75,000	\$0	\$400,000
12	CHICAGO WEST SIDE	7.30	\$267,600	\$24,400	\$0	\$292,000
12	MADISON	3.50	\$228,000	\$15,000	\$20,000	\$263,000
12	MILWAUKEE	4.95	\$343,727	\$25,246	\$0	\$368,973
12	NORTH CHICAGO	6.20	\$300,000	\$15,000	\$30,000	\$345,000
16	GULF COAST	4.20	\$345,606	\$13,308	\$0	\$358,914
16	HOUSTON	6.00	\$457,160	\$37,896	\$0	\$495,056
16	LITTLE ROCK	4.00	\$305,889	\$62,152	\$0	\$368,041
17	DALLAS	6.50	\$303,107	\$15,000	\$28,000	\$346,107
17	WACO	6.50	\$303,107	\$15,000	\$28,000	\$346,107
19	DENVER	6.20	\$300,000	\$15,000	\$30,000	\$345,000
19	FORT HARRISON	1.00	\$240,000	\$0	\$0	\$240,000
19	GRAND JUNCTION	3.15	\$253,661	\$3,810	\$0	\$257,471
19	SALT LAKE CITY	5.75	\$316,304	\$6,445	\$0	\$322,749
19	SOUTHERN COLORADO	7.60	\$256,396	\$152,121	\$0	\$408,517
20	AMERICAN LAKE	6.50	\$280,000	\$25,000	\$45,000	\$350,000
20	BOISE	3.60	\$236,000	\$8,100	\$23,600	\$267,700
20	PORTLAND	7.00	\$268,000	\$19,500	\$0	\$287,500
20	SEATTLE	5.20	\$260,000	\$15,000	\$26,000	\$301,000
21	PALO ALTO	3.80	\$303,085	\$7,740	\$0	\$310,825
21	SAN FRANCISCO	6.50	\$300,000	\$15,000	\$30,000	\$345,000
22	GREATER LOS ANGELES	6.50	\$300,000	\$25,000	\$45,000	\$370,000
23	KNOXVILLE	7.85	\$436,195	\$14,786	\$0	\$450,981
23	MINNEAPOLIS	5.20	\$260,000	\$15,000	\$26,000	\$301,000
	ALL SITES	308.73	\$15,372,592	\$1,199,588	\$858,591	\$17,430,771
	SITE AVERAGE	5.94	\$295,627	\$23,069	\$16,511	\$335,207
	SITE STD. DEV	2.06	\$85,036	\$24,877	\$16,191	\$92,877

TABLE 2-4. FY 2002 PROGRAM EXPENDITURES

VISN	SITE NAME	FY 2002 FILLED FTE	FY 2002 P/S EXPEND.	FY 2002 AO EXPEND.	FY 2002 TOTAL EXPEND.
1	BEDFORD	11.78	\$789,260	\$15,598	\$804,858
1	BROCKTON	3.68	\$265,142	\$5,282	\$270,424
1	TOGUS	3.25	\$283,083	\$9,548	\$292,631
1	WEST HAVEN	5.33	\$383,668	\$26,236	\$409,904
2	ALBANY	4.50	\$293,813	\$981	\$294,794
2	BUFFALO	5.30	\$265,136	\$9,761	\$274,897
2	CANANDAIGUA	9.50	\$575,716	\$27,380	\$603,096
2	SYRACUSE	3.75	\$226,502	\$100	\$226,602
3	BROOKLYN	5.00	\$383,146	\$13,817	\$396,963
3	MONTROSE	8.50	\$650,069	\$18,000	\$668,069
3	NEW JERSEY	7.70	\$562,527	\$23,977	\$586,504
4	COATESVILLE	6.20	\$273,974	\$4,874	\$278,848
4	PITTSBURGH	8.10	\$667,283	\$4,916	\$672,199
5	PERRY POINT	7.10	\$426,045	\$19,878	\$445,923
6	SALEM	4.55	\$240,016	\$0	\$240,016
6	SALISBURY	4.70	\$258,525	\$14,100	\$272,625
7	ATLANTA	6.20	\$273,124	\$12,284	\$285,408
7	AUGUSTA	4.50	\$346,575	\$17,093	\$363,668
7	TUSKEGEE	4.00	\$280,455	\$14,992	\$295,447
8	GAINESVILLE	5.20	\$399,762	\$11,458	\$411,220
10	CHILLICOTHE	5.60	\$360,465	\$16,006	\$376,471
10	CINCINNATI	2.40	\$247,890	\$15,801	\$263,691
10	CLEVELAND	15.00	\$718,295	\$33,748	\$752,043
10	COLUMBUS	2.66	\$113,461	\$65,577	\$179,038
10	DAYTON	4.50	\$263,166	\$31,627	\$294,793
10	YOUNGSTOWN	4.00	\$316,301	\$11,616	\$327,917
11	ANN ARBOR	5.20	\$302,013	\$43,823	\$345,836
11	BATTLE CREEK	6.20	\$390,616	\$13,961	\$404,577
11	DETROIT	7.43	\$336,230	\$6,000	\$342,230
12	CHICAGO WEST SIDE	6.25	\$357,459	\$0	\$357,459
12	MADISON	4.63	\$304,821	\$28,849	\$333,670
12	MILWAUKEE	3.95	\$277,758	\$19,546	\$297,304
12	NORTH CHICAGO	11.50	\$710,347	\$22,855	\$733,202
16	GULF COAST	4.20	\$258,518	\$7,075	\$265,593
16	HOUSTON	6.00	\$492,805	\$12,024	\$504,829
16	LITTLE ROCK	4.00	\$299,971	\$21,655	\$321,626
17	DALLAS	5.50	\$316,055	\$22,232	\$338,287
17	WACO	4.00	\$230,957	\$18,509	\$249,466
19	DENVER	6.00	\$416,892	\$1,000	\$417,892
19	FORT HARRISON	1.00	\$103,856	\$0	\$103,856
19	GRAND JUNCTION	3.15	\$384,185	\$0	\$384,185
19	SALT LAKE CITY	3.75	\$374,967	\$7,096	\$382,063
19	SOUTHERN COLORADO	6.20	\$463,184	\$117,000	\$580,184
20	AMERICAN LAKE	3.90	\$344,940	\$1,250	\$346,190
20	BOISE	4.10	\$357,606	\$23,617	\$381,223
20	PORTLAND	5.50	\$436,946	\$22,686	\$459,632
20	SEATTLE	3.50	\$272,225	\$1,250	\$273,475
21	PALO ALTO	2.90	\$227,377	\$5,160	\$232,537
21	SAN FRANCISCO	3.20	\$272,339	\$21,816	\$294,155
22	GREATER LOS ANGELES	4.00	\$383,380	\$17,440	\$400,820
23	KNOXVILLE	8.60	\$535,516	\$31,142	\$566,658
23	MINNEAPOLIS	5.70	\$378,718	\$11,950	\$390,668
ALL SITES		283.36	\$19,093,080	\$902,586	\$19,995,666
SITE AVERAGE		5.45	\$367,175	\$17,357	\$384,532
SITE STD. DEV		2.48	\$145,358	\$18,587	\$149,207

Source: MHICM Local Progress Reports FY2002

TABLE 2-5. UTILIZATION OF STAFF RESOURCES

VISN	SITE NAME	ALLOCATED FTE	FY FILLED FTE	% FTE UTILIZED	SEPT. CLINICAL FTE^	FTE UNFILLED GTE 6 MO.	FTE ASSIGNED TO NON-MHICM
1	BEDFORD	12.75	11.78	92.4%	9.50	Y	N
1	BROCKTON	5.68	3.68	64.8%	2.93	Y	Y
1	TOGUS	3.25	3.25	100.0%	2.50	N	N
1	WEST HAVEN	8.73	5.33	69.1%	4.80	Y	N
2	ALBANY	4.50	4.50	100.0%	3.50	N	N
2	BUFFALO	6.30	5.30	84.1%	5.00	Y	Y
2	CANANDAIGUA	9.50	9.50	100.0%	9.50	N	N
2	SYRACUSE	3.75	3.75	100.0%	3.00	N	Y
3	BROOKLYN	6.00	5.00	83.3%	4.50	Y	N
3	MONTROSE	8.50	8.50	100.0%	7.50	N	N
3	NEW JERSEY	9.70	7.70	79.4%	7.00	Y	Y
4	COATESVILLE	6.20	6.20	100.0%	3.90	Y	N
4	PITTSBURGH	8.10	8.10	100.0%	6.50	N	Y
5	PERRY POINT	7.10	7.10	100.0%	5.50	N	N
6	SALEM	4.55	4.55	100.0%	3.50	N	N
6	SALISBURY	5.20	4.70	90.4%	3.00	N	N
7	ATLANTA	6.20	6.20	100.0%	4.50	N	N
7	AUGUSTA	5.50	4.50	81.8%	3.50	Y	Y
7	TUSKEGEE	6.00	4.00	66.7%	3.50	Y	N
8	GAINESVILLE	5.20	5.20	100.0%	4.00	N	N
10	CHILLICOTHE	6.10	5.60	91.8%	5.00	Y	Y
10	CINCINNATI	3.40	2.40	70.6%	2.00	Y	N
10	CLEVELAND	15.00	15.00	100.0%	12.50	N	N
10	COLUMBUS	4.66	2.66	57.1%	2.33	Y	N
10	DAYTON	4.50	4.50	100.0%	3.50	N	N
10	YOUNGSTOWN	4.00	4.00	100.0%	3.50	N	N
11	ANN ARBOR	5.20	5.20	100.0%	3.50	N	N
11	BATTLE CREEK	6.20	6.20	100.0%	5.00	N	N
11	DETROIT	7.43	7.43	100.0%	6.80	N	N
12	CHICAGO WEST SIDE	6.25	6.25	100.0%	5.50	N	N
12	MADISON	4.63	4.63	100.0%	3.30	N	N
12	MILWAUKEE	3.95	3.95	100.0%	2.50	N	N
12	NORTH CHICAGO	14.00	11.50	82.1%	9.50	Y	Y
16	GULF COAST	4.70	4.20	89.4%	3.50	Y	N
16	HOUSTON	6.00	6.00	100.0%	4.50	N	N
16	LITTLE ROCK	4.00	4.00	100.0%	3.00	N	N
17	DALLAS	7.50	5.50	73.3%	4.00	N	N
17	WACO	4.00	4.00	100.0%	3.50	N	N
19	DENVER	6.50	6.00	92.3%	5.50	N	Y
19	FORT HARRISON	1.00	1.00	100.0%	1.00	N	N
19	GRAND JUNCTION	3.50	3.15	90.0%	3.15	N	Y
19	SALT LAKE CITY	5.75	3.75	65.2%	3.50	N	Y
19	SOUTHERN COLORADO	6.20	6.20	100.0%	5.50	N	N
20	AMERICAN LAKE	5.65	3.90	69.0%	3.00	N	N
20	BOISE	4.10	4.10	100.0%	3.00	N	N
20	PORTLAND	6.50	5.50	84.6%	4.40	N	N
20	SEATTLE	5.00	3.50	70.0%	2.80	Y	N
21	PALO ALTO	3.90	2.90	74.4%	2.40	N	N
21	SAN FRANCISCO	3.20	3.20	100.0%	2.50	N	N
22	GREATER LOS ANGELES	5.00	4.00	80.0%	3.50	Y	N
23	KNOXVILLE	8.60	8.60	100.0%	7.00	N	N
23	MINNEAPOLIS	5.70	5.70	100.0%	4.00	N	N
ALL SITES		314.83	283.36	90.2%	232.31		
SITE AVERAGE		6.05	5.45	90.4%	4.47	30.8%	21.2%
SITE STD. DEV		2.58	2.48	12.7%	2.18		

Source: September 2002 FTE/Caseload Report

TABLE 2-6. CLINICAL STAFF AND CASELOAD

VISN	SITE NAME	*MEDICAL SUPPORT		CLINICAL FTE	9/02 TOTAL # VETS	9/02 CASELOAD per CLIN FTE^	TEAM TARGET CASELOAD	
		MD	RN				MIN	MAX
1	BEDFORD	Y	Y	9.5	98	10.32	67	143
1	BROCKTON	N	N	2.93	64	21.84	21	44
1	TOGUS	Y	Y	2.5	21	8.40	18	38
1	WEST HAVEN	Y	Y	4.8	49	10.21	34	72
2	ALBANY	N	Y	3.5	43	12.29	25	53
2	BUFFALO	N	Y	5	62	12.40	35	75
2	CANANDAIGUA	N	Y	9.5	111	11.68	67	143
2	SYRACUSE	Y	Y	3	47	15.67	21	45
3	BROOKLYN	N	Y	4.5	53	11.78	32	68
3	MONTROSE	Y	Y	7.5	102	13.60	53	113
3	NEW JERSEY	Y	Y	7	79	11.29	49	105
4	COATESVILLE	N	Y	3.9	55	14.10	27	59
4	PITTSBURGH	Y	Y	6.5	105	16.15	46	98
5	PERRY POINT	Y	Y	5.5	87	15.82	39	83
6	SALEM	Y	Y	3.5	32	9.14	25	53
6	SALISBURY	Y	Y	3	29	9.67	21	45
7	ATLANTA	Y	Y	4.5	57	12.67	32	68
7	AUGUSTA	N	Y	3.5	69	19.71	25	53
7	TUSKEGEE	N	Y	3.5	55	15.71	25	53
8	GAINESVILLE	Y	Y	4	57	14.25	28	60
10	CHILLICOTHE	Y	Y	5	55	11.00	35	75
10	CINCINNATI	Y	Y	2	53	26.50	14	30
10	CLEVELAND	Y	Y	12.5	110	8.80	88	188
10	COLUMBUS	N	Y	2.33	13	5.58	16	35
10	DAYTON	N	Y	3.5	43	12.29	25	53
10	YOUNGSTOWN	N	Y	3.5	37	10.57	25	53
11	ANN ARBOR	Y	Y	3.5	45	12.86	25	53
11	BATTLE CREEK	Y	Y	5	63	12.60	35	75
11	DETROIT	Y	Y	6.8	85	12.50	48	102
12	CHICAGO WEST SIDE	Y	Y	5.5	63	11.45	39	83
12	MADISON	Y	Y	3.3	40	12.12	23	50
12	MILWAUKEE	Y	Y	2.5	21	8.40	18	38
12	NORTH CHICAGO	Y	Y	9.5	116	12.21	67	143
16	GULF COAST	Y	Y	3.5	33	9.43	25	53
16	HOUSTON	Y	Y	4.5	51	11.33	32	68
16	LITTLE ROCK	Y	Y	3	35	11.67	21	45
17	DALLAS	N	Y	4	63	15.75	28	60
17	WACO	N	N	3.5	57	16.29	25	53
19	DENVER	N	Y	5.5	66	12.00	39	83
19	FORT HARRISON	N	Y	1	18	18.00	7	15
19	GRAND JUNCTION	N	Y	3.15	33	10.48	22	47
19	SALT LAKE CITY	Y	Y	3.5	55	15.71	25	53
19	SOUTHERN COLORADO	N	Y	5.5	103	18.73	39	83
20	AMERICAN LAKE	Y	Y	3	42	14.00	21	45
20	BOISE	Y	Y	3	38	12.67	21	45
20	PORTLAND	Y	Y	4.4	59	13.41	31	66
20	SEATTLE	Y	Y	2.8	36	12.86	20	42
21	PALO ALTO	N	Y	2.4	32	13.33	17	36
21	SAN FRANCISCO	Y	Y	2.5	40	16.00	18	38
22	GREATER LOS ANGELES	N	Y	3.5	45	12.86	25	53
23	KNOXVILLE	Y	Y	7	84	12.00	49	105
23	MINNEAPOLIS	Y	Y	4	65	16.25	28	60
ALL SITES		63.5%	96.2%	232.31	2999	12.91	1626	3485
SITE AVERAGE				4.47	57.2	13.20	31.6	67.3
SITE STD. DEV				2.18	25.3	3.53	15.3	32.7

* Medical Support assigned to team: N=No, Y=Yes

+ Target Caseload ranges based on client:clinical FTE levels of 7:1 Minimum and 15:1 Maximum

^ Shaded values fall outside minimum standard caseload range (7.0-15.0 clients per clinical FTE) or deviate from expected staffing.

Source: September 2002 FTE/Caseload Report

TABLE 2-7. DEMOGRAPHIC CHARACTERISTICS OF VETERANS AT INTAKE

	OVERALL	GM+S	NP
	(N= 3,566)	(N= 1,943)	(N= 1,623)
	#	#	#
AGE (Mean Years)	49.9	49.1	50.8
GENDER	%	%	%
Male	91.6	90.6	92.7
Female	8.4	9.4	7.3
RACE			
White, non-Hisp.	67.6	64.6	71.2
African-America	26.6	28.8	24.0
Hispanic	3.0	3.0	3.0
Other	0.9	1.1	0.7
Alaskan /American Indian	0.6	0.9	0.3
Asian or Pacific Islander	1.3	1.6	0.9
MARITAL STATUS			
Never Married	50.1	48.2	52.5
Divorced	29.7	30.1	29.2
Married	10.0	10.9	8.9
Separated	6.2	6.1	6.3
Widowed	3.3	3.9	2.5
Living w/signif. other	0.7	0.7	0.6
COMBAT EXPOSURE	19.7	20.4	18.9
EMPLOYMENT LAST 3 YR			
Disability	72.8	75.9	69.2
Hosp./Controlled Environment	5.7	2.9	9.0
Retired	5.2	5.6	4.8
Unemployed	4.2	3.5	5.1
Part-time/Irregular work	5.3	4.9	5.8
Full-time work	3.9	3.7	4.1
Part-time Regular work	2.1	2.5	1.6
Student/Volunteer work	0.7	1.0	0.4

Source: Client Interviews

NEPEC September 03, 20 Final

TABLE 2-8. ENTRY CRITERIA INFORMATION

	OVERALL (N= 3,566)	GMS (N= 1,943)	NP (N= 1,623)
	#	#	#
MEAN HOSPITAL DAYS (1 Yr Pre)	92.3	66.1	122.6
	%	%	%
INP'T. PSYCH.UNIT REFERRAL	42.2	44.7	39.1
PRIM.PSYCHIATRIC DIAGNOSIS	100.0	100.0	100.0
GTE 30 DAYS IN HOSPITAL	76.9	74.9	79.3
DUAL DIAGNOSIS AT ENTRY	19.7	19.2	20.2
DIAGNOSIS			
Schizophrenia	58.4	58.4	58.3
Schizoaffective	19.0	20.7	16.9
Bipolar Disorder	15.7	15.6	15.8
Affective Disorder	5.7	5.2	6.2
PTSD	5.9	5.8	6.2
Psychosis/Other	3.0	3.3	2.6
Other Disorder	6.9	7.0	6.8
Anxiety Disorder	2.3	2.3	2.3
Alcohol Abuse/Dependence	15.2	13.9	16.7
Organic Brain Syndrome	1.6	1.4	1.9
Dementia	1.7	1.3	2.1
Borderline Personality Disorder	3.0	2.9	3.1
Drug Abuse/Dependence	9.4	10.3	8.4
Adjustment Disorder	0.7	0.6	0.7
DISABILITY/PENSION			
DISABILITY/PENSION	94.8	95.8	93.6
SC DISABILITY	56.2	58.3	53.6
NSC PENSION	18.2	16.8	20.0
SSI	15.5	17.6	12.9
SSDI	48.8	48.8	48.9
PAYEE	50.6	49.3	52.2

Source: Client Interviews

TABLE 2-9. RECEIPT OF DISABILITY COMPENSATION OR PENSION INCOME

VISN	SITE	VA COMPENSATION %	NSC PENSION %	SSI %	SSDI %	REP PAYEE %	ANY DISABILITY %
1	Bedford	40.2	13.1	14.3	37.8	31.0	79.5
1	Brockton	40.6	18.8	15.6	40.6	68.8	93.8
1	Togus	69.2	11.5	11.5	46.2	65.4	100.0
1	West Haven	50.0	20.0	20.0	55.0	60.0	100.0
2	Albany	72.2	11.1	16.7	44.4	50.0	94.4
2	Buffalo	51.0	16.7	19.1	44.7	38.8	91.8
2	Canandaigua	52.3	25.0	15.4	49.2	64.6	100.0
2	Syracuse	40.0	16.2	17.5	40.0	30.0	87.5
3	Brooklyn	58.2	12.0	7.9	41.0	19.2	94.9
3	Montrose	60.7	20.5	16.7	50.0	79.8	97.6
3	New Jersey	58.4	17.0	11.4	53.4	50.6	100.0
4	Coatesville	67.1	13.8	22.0	39.5	61.7	98.8
4	Pittsburgh	46.8	29.3	8.0	43.7	29.4	92.1
5	Perry Point	63.2	21.9	8.8	45.6	66.1	97.4
6	Salem	52.2	8.7	8.7	52.2	47.8	91.3
6	Salisbury	61.0	30.0	7.3	51.2	53.7	100.0
7	Atlanta	86.7	2.6	11.4	62.2	44.4	95.6
7	Augusta	64.4	20.5	11.0	39.7	63.0	100.0
7	Tuskegee	66.3	15.8	21.0	54.2	58.5	98.8
8	Gainesville	64.3	8.7	14.5	60.0	52.2	100.0
10	Chillicothe	41.9	16.4	11.5	47.5	43.5	87.1
10	Cincinnati	69.2	9.2	10.8	56.9	40.0	93.8
10	Cleveland	50.4	17.9	13.3	45.9	54.4	95.6
10	Columbus	65.0	15.8	30.0	55.0	45.0	95.0
10	Dayton	58.2	27.3	16.7	50.9	41.8	96.4
10	Youngstown	54.8	16.7	35.7	42.9	57.1	90.5
11	Ann Arbor	52.1	10.6	12.8	60.4	54.2	91.7
11	Battle Creek	60.2	18.5	22.2	61.0	61.4	97.6
11	Detroit	67.7	18.3	21.5	58.7	46.2	96.8
12	Chicago West Side	29.8	17.9	25.0	36.8	24.6	94.7
12	Madison	45.8	14.6	10.6	68.8	50.0	95.8
12	Milwaukee	76.9	16.0	23.1	46.2	53.8	100.0
12	North Chicago	35.4	15.9	20.5	48.8	58.3	91.3
16	Gulf Coast	47.4	26.3	13.2	68.4	26.3	94.7
16	Houston	39.7	14.0	39.7	31.0	50.0	96.6
16	Little Rock	55.3	28.6	21.1	39.5	71.1	100.0
17	Dallas	58.4	22.1	10.5	43.4	57.1	93.5
17	Waco	47.8	19.4	10.3	38.2	42.0	92.8
19	Denver	72.0	16.0	20.8	42.7	53.3	97.3
19	Fort Harrison	68.4	26.3	15.8	42.1	36.8	94.7
19	Grand Junction	36.4	18.2	15.2	57.6	30.3	93.9
19	Salt Lake City	70.0	6.7	16.7	61.7	81.7	96.7
19	Southern Colorado	75.8	21.7	8.3	50.0	65.0	98.3
20	American Lake	50.0	14.0	6.0	64.0	44.0	90.0
20	Boise	73.7	45.9	31.6	55.3	52.6	100.0
20	Portland	45.2	16.7	11.9	42.9	42.9	88.1
20	Seattle	56.4	22.2	12.8	36.8	38.5	100.0
21	Palo Alto	67.7	6.5	32.3	35.5	90.3	100.0
21	San Francisco	52.4	22.0	19.5	45.2	40.5	97.6
22	Greater Los Angeles	62.2	14.6	30.2	45.5	51.2	86.7
23	Knoxville	49.0	25.0	1.0	60.0	45.5	88.0
23	Minneapolis	55.6	19.4	12.7	56.3	40.3	97.2
ALL SITES		56.2	18.2	15.5	48.8	50.6	94.8
SITE AVERAGE		56.8	18.0	16.6	49.0	50.5	95.1
SITE STD. DEV.		12.2	7.2	7.9	9.0	14.6	4.5

Source: Client Interview

TABLE 2-10. ENTRY CRITERIA INFORMATION BY SITE

VISN	SITE	LIFETIME	YEARS SINCE	GTE 30 DAYS	PSYCHOTIC DX	DUAL
		HOSP GT 2 YRS	1ST HOSP.	HOSP. YR PREV	AT ENTRY	DIAGNOSIS
		%	#	%	%	%
1	Bedford	32.2	19.0	65.9	66.9	57.5
1	Brockton	78.1	24.4	100.0	93.8	6.3
1	Togus	48.0	24.0	92.3	88.5	3.8
1	West Haven	60.0	24.9	90.0	90.0	30.0
2	Albany	27.8	19.9	55.6	77.8	50.0
2	Buffalo	27.5	28.5	25.0	91.8	18.4
2	Canandaigua	74.6	25.9	86.2	93.8	30.8
2	Syracuse	26.3	14.4	85.0	72.5	25.0
3	Brooklyn	36.1	20.9	79.7	83.5	15.2
3	Montrose	84.9	27.3	92.8	97.6	14.3
3	New Jersey	49.4	25.4	70.5	93.3	29.2
4	Coatesville	75.0	25.6	86.4	93.9	25.6
4	Pittsburgh	41.2	23.3	88.0	92.9	11.1
5	Perry Point	88.7	31.5	100.0	99.1	7.0
6	Salem	22.7	19.6	59.1	73.9	39.1
6	Salisbury	75.6	24.7	97.6	97.6	24.4
7	Atlanta	52.4	22.5	97.8	91.1	4.4
7	Augusta	83.8	23.7	100.0	94.5	2.7
7	Tuskegee	23.8	21.9	65.0	92.8	3.6
8	Gainesville	54.7	24.7	75.7	91.4	4.3
10	Chillicothe	59.3	20.1	91.9	87.1	11.3
10	Cincinnati	32.3	22.3	61.5	98.5	12.3
10	Cleveland	46.5	25.9	77.0	97.1	13.9
10	Columbus	10.5	18.5	60.0	80.0	15.0
10	Dayton	24.1	18.6	63.0	83.6	3.6
10	Youngstown	16.2	25.5	28.6	81.0	26.2
11	Ann Arbor	27.5	19.9	83.0	97.9	27.1
11	Battle Creek	74.3	24.0	86.7	91.6	10.8
11	Detroit	59.7	23.2	92.5	97.8	21.5
12	Chicago West Side	26.8	22.0	93.0	93.0	15.8
12	Madison	36.2	23.2	76.6	97.9	25.0
12	Milwaukee	39.1	21.8	16.0	96.2	15.4
12	North Chicago	59.0	23.9	74.0	87.4	24.4
16	Gulf Coast	35.1	22.5	86.8	65.8	36.8
16	Houston	28.1	23.5	43.9	93.1	36.2
16	Little Rock	31.0	25.4	78.9	92.1	7.9
17	Dallas	34.7	17.9	96.1	94.8	26.0
17	Waco	54.5	21.1	79.4	87.0	14.5
19	Denver	36.2	19.4	93.3	94.7	24.0
19	Fort Harrison	26.3	17.2	63.2	73.7	26.3
19	Grand Junction	18.2	19.1	40.6	84.8	36.4
19	Salt Lake City	42.9	23.6	35.0	93.3	21.7
19	Southern Colorado	56.9	26.4	20.0	90.8	12.5
20	American Lake	36.2	19.8	98.0	100.0	24.0
20	Boise	28.6	21.8	34.2	97.4	21.1
20	Portland	26.8	19.0	97.6	100.0	19.0
20	Seattle	35.3	26.2	68.4	89.7	25.6
21	Palo Alto	83.9	26.4	100.0	100.0	38.7
21	San Francisco	31.7	23.3	83.3	92.9	33.3
22	Greater Los Angeles	59.1	21.9	97.8	86.7	22.2
23	Knoxville	49.5	22.1	93.0	82.0	19.0
23	Minneapolis	53.6	21.9	97.2	97.2	5.6
ALL SITES		48.2	23.1	76.9	90.7	19.7
SITE AVERAGE		45.1	22.7	75.4	90.0	20.7
SITE STD. DEV.		20.3	3.1	23.3	8.4	12.1

^ Shaded values do not meet the minimum standard (50% with 30+ hospital days in year prior to entry).

Source: Client Interview

TABLE 2-11. CLINICAL STATUS AT ENTRY

VISN	SITE	INPATIENT AT ENTRY %	LOW IADL %	BPRS MEAN #	GAF MEAN #
1	Bedford	27.6	43.7	34.1	42.2
1	Brockton	12.5	63.3	39.6	31.2
1	Togus	69.2	50.0	32.7	47.3
1	West Haven	85.0	65.0	39.8	31.3
2	Albany	11.1	33.3	50.9	34.5
2	Buffalo	4.1	70.5	34.1	35.0
2	Canandaigua	6.2	43.5	38.7	33.3
2	Syracuse	37.5	65.0	43.2	39.8
3	Brooklyn	46.8	46.2	42.1	39.4
3	Montrose	65.5	69.0	48.3	39.8
3	New Jersey	46.1	54.9	41.9	43.4
4	Coatesville	37.8	71.6	43.6	38.0
4	Pittsburgh	61.1	50.0	37.0	36.1
5	Perry Point	56.1	62.1	45.2	39.9
6	Salem	4.3	47.6	38.9	47.2
6	Salisbury	53.7	53.8	39.0	41.1
7	Atlanta	86.7	58.1	35.4	46.7
7	Augusta	60.3	52.2	29.7	44.3
7	Tuskegee	80.7	72.3	36.9	50.0
8	Gainesville	40.0	55.9	48.1	42.4
10	Chillicothe	82.3	36.1	33.8	40.9
10	Cincinnati	52.3	50.0	34.2	42.0
10	Cleveland	43.8	49.6	35.4	34.8
10	Columbus	15.0	50.0	44.0	43.8
10	Dayton	30.9	34.5	28.1	50.3
10	Youngstown	4.9	55.0	42.8	50.2
11	Ann Arbor	35.4	62.8	42.2	36.0
11	Battle Creek	24.1	67.1	37.8	47.5
11	Detroit	71.0	55.2	32.7	44.2
12	Chicago West Side	35.1	59.6	38.4	36.9
12	Madison	59.6	45.8	36.9	45.1
12	Milwaukee	0.0	69.2	50.1	44.5
12	North Chicago	50.4	38.1	33.6	34.4
16	Gulf Coast	23.7	57.9	43.2	46.2
16	Houston	20.7	67.2	43.0	41.1
16	Little Rock	13.2	68.6	35.3	26.1
17	Dallas	88.3	59.7	38.6	40.0
17	Waco	26.1	38.2	42.3	41.4
19	Denver	72.0	52.8	34.8	37.5
19	Fort Harrison	0.0	63.2	46.9	46.1
19	Grand Junction	39.4	54.5	58.5	36.2
19	Salt Lake City	23.3	48.3	55.7	34.1
19	Southern Colorado	2.5	42.9	33.6	42.3
20	American Lake	22.0	51.0	46.3	39.3
20	Boise	5.3	44.7	36.0	41.1
20	Portland	78.6	73.2	39.9	31.0
20	Seattle	23.1	59.0	57.9	38.2
21	Palo Alto	6.5	96.8	48.6	38.6
21	San Francisco	33.3	61.0	43.9	35.8
22	Greater Los Angeles	71.1	55.6	46.3	47.6
23	Knoxville	7.0	60.2	39.6	34.7
23	Minneapolis	77.5	33.3	45.1	35.7
ALL SITES		42.2	54.2	39.7	40.0
SITE AVERAGE		39.0	55.6	40.9	40.1
SITE STD. DEV.		27.1	12.2	6.7	5.5

Shaded values are greater than or equal to 50..

Source: Client Interview

TABLE 2-12. MHICM PROGRAM TENURE

VISN	SITE	TOTAL VETS FY02	VETS DISCHARGED #	VETS DISCHARGED %	MEAN DAYS IN PROGRAM PER VET
1	Bedford	134	22	16.4%	1,271
1	Brockton	68	4	5.9%	1,389
1	Togus	26	5	19.2%	1,644
1	West Haven	54	4	7.4%	1,338
2	Albany	48	4	8.3%	685
2	Buffalo	72	7	9.7%	811
2	Canandaigua	122	10	8.2%	1,253
2	Syracuse	53	5	9.4%	1,086
3	Brooklyn	79	26	32.9%	1,215
3	Montrose	121	17	14.0%	1,126
3	New Jersey	91	3	3.3%	783
4	Coatesville	83	6	7.2%	1,865
4	Pittsburgh	126	20	15.9%	1,413
5	Perry Point	114	23	20.2%	1,419
6	Salem	35	3	8.6%	180
6	Salisbury	46	15	32.6%	1,136
7	Atlanta	66	9	13.6%	1,743
7	Augusta	73	3	4.1%	1,706
7	Tuskegee	83	27	32.5%	1,325
8	Gainesville	70	13	18.6%	1,681
10	Chillicothe	62	6	9.7%	1,534
10	Cincinnati	66	10	15.2%	694
10	Cleveland	144	26	18.1%	760
10	Columbus	22	7	31.8%	929
10	Dayton	55	9	16.4%	813
10	Youngstown	43	6	14.0%	301
11	Ann Arbor	49	3	6.1%	1,461
11	Battle Creek	86	19	22.1%	1,537
11	Detroit	93	8	8.6%	1,046
12	Chicago West Side	73	8	11.0%	918
12	Madison	48	8	16.7%	1,523
12	Milwaukee	26	5	19.2%	317
12	North Chicago	129	8	6.2%	1,303
16	Gulf Coast	41	4	9.8%	230
16	Houston	59	5	8.5%	329
16	Little Rock	42	6	14.3%	283
17	Dallas	82	10	12.2%	1,665
17	Waco	69	12	17.4%	762
19	Denver	77	6	7.8%	1,360
19	Fort Harrison	20	1	5.0%	305
19	Grand Junction	34	0	0.0%	630
19	Salt Lake City	61	6	9.8%	568
19	Southern Colorado	121	18	14.9%	635
20	American Lake	50	6	12.0%	1,652
20	Boise	38	0	0.0%	1,629
20	Portland	74	12	16.2%	975
20	Seattle	39	2	5.1%	1,659
21	Palo Alto	34	0	0.0%	180
21	San Francisco	43	2	4.7%	1,483
22	Greater Los Angeles	48	2	4.2%	1,748
23	Knoxville	100	13	13.0%	528
23	Minneapolis	74	7	9.5%	1,552
ALL SITES		3,566	461	12.9 %	1,145
SITE AVERAGE		68.6	9	12.4 %	1,084
SITE STD. DEV.		31.4	7	7.9 %	501

^Shaded values exceed the threshold level (20%) for the minimum program standard.

Source: Clinical Progrss Reports as of 9/30/02

TABLE 2-13. PATTERN OF SERVICE DELIVERY

VISN	SITE	Total VETS #	CONTACT FREQUENCY % WEEKLY OR MORE		INTENSITY GTE 1 HOUR PER WEEK CONTACT	LOCATION 60% OR MORE CONTACT IN COMMUNITY
			FACE-FACE	TELEPHONE		
1	Bedford	134	97.8	64.9	71.6	65.7
1	Brockton	68	83.8	30.9	54.4	89.7
1	Togus	26	100.0	42.3	69.2	84.6
1	West Haven	54	87.0	66.7	68.5	90.7
2	Albany	48	62.5	35.4	56.3	43.8
2	Buffalo	72	87.5	43.1	43.1	97.2
2	Canandaigua	122	86.1	24.6	83.6	69.7
2	Syracuse	53	71.7	52.8	62.3	62.3
3	Brooklyn	79	68.4	70.9	68.4	82.3
3	Montrose	121	92.6	19.0	22.3	95.0
3	New Jersey	91	90.1	39.6	60.4	95.6
4	Coatesville	83	84.3	62.7	73.5	68.7
4	Pittsburgh	126	95.2	69.0	65.9	88.9
5	Perry Point	114	96.5	57.0	87.7	94.7
6	Salem	35	85.7	45.7	48.6	82.9
6	Salisbury	46	82.6	45.7	71.7	97.8
7	Atlanta	66	87.9	78.8	37.9	78.8
7	Augusta	73	84.9	31.5	67.1	91.8
7	Tuskegee	83	91.6	65.1	88.0	91.6
8	Gainesville	70	87.1	52.9	64.3	92.9
10	Chillicothe	62	85.5	59.7	58.1	90.3
10	Cincinnati	66	78.8	63.6	37.9	98.5
10	Cleveland	144	95.1	63.9	59.0	97.9
10	Columbus	22	68.2	54.5	54.5	81.8
10	Dayton	55	78.2	70.9	70.9	92.7
10	Youngstown	43	83.7	67.4	51.2	88.4
11	Ann Arbor	49	53.1	46.9	38.8	89.8
11	Battle Creek	86	86.0	50.0	58.1	90.7
11	Detroit	93	61.3	28.0	44.1	88.2
12	Chicago West Side	73	83.6	38.4	53.4	93.2
12	Madison	48	91.7	39.6	54.2	87.5
12	Milwaukee	26	88.5	53.8	76.9	84.6
12	North Chicago	129	84.5	25.6	65.1	86.8
16	Gulf Coast	41	97.6	85.4	85.4	95.1
16	Houston	59	94.9	50.8	33.9	91.5
16	Little Rock	42	92.9	50.0	69.0	88.1
17	Dallas	82	78.0	50.0	36.6	81.7
17	Waco	69	98.6	95.7	97.1	100.0
19	Denver	77	89.6	49.4	62.3	90.9
19	Fort Harrison	20	75.0	55.0	65.0	95.0
19	Grand Junction	34	100.0	70.6	97.1	76.5
19	Salt Lake City	61	95.1	77.0	85.2	91.8
19	Southern Colorado	121	87.6	44.6	53.7	96.7
20	American Lake	50	88.0	66.0	70.0	94.0
20	Boise	38	81.6	65.8	86.8	92.1
20	Portland	74	86.5	41.9	59.5	91.9
20	Seattle	39	79.5	59.0	53.8	84.6
21	Palo Alto	34	97.1	85.3	76.5	100.0
21	San Francisco	43	95.3	44.2	48.8	86.0
22	Greater Los Angeles	48	66.7	58.3	62.5	72.9
23	Knoxville	100	98.0	51.0	52.0	96.0
23	Minneapolis	74	89.2	41.9	47.3	100.0
ALL SITES		3566	86.6	52.1	61.4	88.0
SITE AVERAGE			85.6	53.9	62.1	87.7
SITE STD. DEV.		31.4	10.5	16.4	16.4	10.7

~Shaded values do not meet the minimum standard of 50% or more contact in community.

Bold /Underlined values represent positive outliers.

Source: Clinical Progress Reports as of 9/30/02

TABLE 2-14. OUTPATIENT CLINIC VISITS

VISN	SITE	TOTAL VETS SEEN	MEAN CONTACTS per VET:12 MONTH			FY 2002 MEAN AMOUNT OF TIME IN PGM	ADJUSTED	ADJUSTED
			TOTAL	TELEPHONE	FACE:FACE		FACE-FACE	FACE-FACE
							CONTACTS/ VETERAN	CONTACTS/ WK/VETERAN^
1	Bedford	123	122.12	10.20	111.93	0.75	149.6	<u>2.88</u>
1	Brockton	67	78.43	6.48	71.96	0.95	75.5	1.45
1	Togus	26	74.12	7.31	66.81	0.87	76.4	1.47
1	West Haven	52	93.96	22.77	71.19	0.95	75.0	1.44
2	Albany	46	90.52	2.83	87.70	0.92	95.5	1.84
2	Buffalo	70	45.66	7.03	38.63	0.80	48.5	<u>0.93</u>
2	Canandaigua	119	77.74	0.84	76.90	0.91	84.4	1.62
2	Syracuse	50	45.70	11.06	34.64	0.86	40.1	<u>0.77</u>
3	Brooklyn	79	40.46	17.84	22.62	0.86	26.4	<u>0.51</u>
3	Montrose	114	48.46	3.67	44.76	0.88	50.8	<u>0.98</u>
3	New Jersey	86	49.20	4.64	44.56	0.89	50.3	<u>0.97</u>
4	Coatesville	78	46.22	5.24	30.79	0.83	37.1	<u>0.71</u>
4	Pittsburgh	126	40.33	1.81	38.52	0.84	45.8	<u>0.88</u>
5	Perry Point	107	75.79	2.13	68.84	0.81	84.9	1.63
6	Salem	35	36.37	0.03	34.26	0.54	63.6	1.22
6	Salisbury	44	35.27	0.73	26.00	0.71	36.7	<u>0.71</u>
7	Atlanta	64	75.17	17.36	57.81	0.67	86.5	1.66
7	Augusta	71	76.03	4.72	71.31	0.92	77.4	1.49
7	Tuskegee	74	34.01	0.11	33.91	0.76	44.5	<u>0.85</u>
8	Gainesville	69	67.51	1.01	66.49	0.93	71.4	1.37
10	Chillicothe	57	56.93	4.00	52.89	0.88	60.4	1.16
10	Cincinnati	63	40.41	2.32	38.10	0.81	46.8	<u>0.90</u>
10	Cleveland	132	72.87	0.20	72.55	0.81	89.6	1.72
10	Columbus	20	28.60	0.00	28.60	0.74	38.9	<u>0.75</u>
10	Dayton	51	41.76	0.00	41.76	0.83	50.3	<u>0.97</u>
10	Youngstown	43	64.21	0.00	64.21	0.93	69.4	1.33
11	Ann Arbor	48	77.88	0.00	77.88	0.94	82.8	1.59
11	Battle Creek	82	57.71	2.43	55.28	0.71	77.6	1.49
11	Detroit	91	28.51	0.00	28.51	0.88	32.5	<u>0.63</u>
12	Chicago West Side	70	57.99	0.49	57.50	0.83	69.7	1.34
12	Madison	48	198.56	11.83	186.73	0.83	226.1	<u>4.35</u>
12	Milwaukee	26	127.38	13.27	114.12	0.77	148.7	<u>2.86</u>
12	North Chicago	124	111.54	0.15	111.40	0.92	120.5	<u>2.32</u>
16	Gulf Coast	35	64.03	12.74	51.29	0.40	127.6	<u>2.45</u>
16	Houston	56	48.70	1.80	46.89	0.83	56.7	1.09
16	Little Rock	40	82.80	4.70	65.70	0.75	87.1	1.68
17	Dallas	73	67.30	2.68	64.62	0.77	84.4	1.62
17	Waco	61	68.48	0.00	68.48	0.78	87.8	1.69
19	Denver	68	38.87	0.13	38.74	0.89	43.4	<u>0.83</u>
19	Fort Harrison*	17	42.06	0.00	42.06	0.73	58.0	1.11
19	Grand Junction	33	95.21	4.09	91.12	0.87	104.5	2.01
19	Salt Lake City	58	67.41	1.03	64.12	0.88	73.3	1.41
19	Southern Colorado	114	42.23	1.74	40.06	0.83	48.1	<u>0.92</u>
20	American Lake	49	52.65	0.10	52.55	0.88	59.5	1.14
20	Boise	36	38.28	0.17	38.11	0.92	41.4	<u>0.80</u>
20	Portland	73	70.74	3.51	66.74	0.85	78.7	1.51
20	Seattle	39	84.72	1.64	83.08	0.90	92.5	1.78
21	Palo Alto	33	30.85	2.67	28.18	0.43	65.0	1.25
21	San Francisco	42	51.02	0.02	51.00	0.76	67.1	1.29
22	Greater Los Angeles	46	43.39	9.09	34.30	0.92	37.4	<u>0.72</u>
23	Knoxville	96	47.08	4.48	42.60	0.76	56.0	1.08
23	Minneapolis	71	50.85	0.66	50.18	0.86	58.3	1.12
ALL SITES		3395	64.00	3.91	59.36	0.83	71.7	1.38
SITE AVERAGE		65.29	63.54	4.11	58.63	0.82	72.31	1.39
SITE STD. DEV.		29.35	29.71	5.22	28.35	0.11	34.52	0.66

^Shaded values do not meet the minimum standard of at least 1 face-to-face contact per client per week.
 Bold /Underlined values exceed one standard deviation from the mean in desired direction.

Source: Outpatient clinic visits entered under DSS Identifiers 546 and 552 between 10/01/01 and 9/30/02.

*Corrected outpatient clinic visit totals provided by facility.

TABLE 2-15A. THERAPEUTIC SERVICES

VISN	SITE	FOLLOW- UP VETS #	SUPPORTIVE CONTACT %	ACTIVE MONITOR %	REHABIL- ITATION %	PSYCHOTHER. RELATIONSHIP %	SOCIAL/REC. ACTIVITIES %	CRISIS INTERVENT %
1	Bedford	134	99.0	99.0	42.0	99.0	69.0	72.0
1	Brockton	68	98.3	98.3	33.3	85.0	65.0	41.7
1	Togus	26	100.0	100.0	<u>100.0</u>	100.0	23.1	3.8
1	West Haven	54	100.0	97.7	68.2	88.6	65.9	75.0
2	Albany	48	97.5	100.0	68.3	95.1	48.8	75.6
2	Buffalo	72	96.4	96.4	19.6	71.4	33.9	44.6
2	Canandaigua	122	92.6	96.3	73.1	84.3	93.5	28.7
2	Syracuse	53	95.3	93.2	<u>79.5</u>	15.9	45.5	72.7
3	Brooklyn	79	97.6	92.9	50.0	83.3	19.0	69.0
3	Montrose	121	97.0	96.0	29.3	45.0	63.0	69.0
3	New Jersey	91	96.2	96.2	35.9	88.5	70.5	64.1
4	Coatesville	83	95.7	95.8	42.6	70.8	70.8	85.4
4	Pittsburgh	126	94.1	98.0	29.4	90.2	21.6	45.1
5	Perry Point	114	95.9	96.9	<u>77.6</u>	85.7	86.7	87.8
6	Salem	35	100.0	96.2	46.2	92.3	30.8	80.8
6	Salisbury	46	96.9	96.9	71.9	78.1	71.9	78.1
7	Atlanta	66	92.3	92.3	50.0	67.3	32.7	65.4
7	Augusta	73	100.0	94.8	<u>77.6</u>	93.1	82.8	87.9
7	Tuskegee	83	83.0	87.2	40.4	74.5	63.8	78.7
8	Gainesville	70	100.0	100.0	23.8	77.8	85.7	57.1
10	Chillicothe	62	97.5	87.5	70.0	72.5	80.0	43.6
10	Cincinnati	66	98.1	100.0	21.2	65.4	57.7	57.7
10	Cleveland	144	94.2	94.2	40.7	87.2	50.0	58.1
10	Columbus	22	92.9	78.6	64.3	64.3	42.9	78.6
10	Dayton	55	90.9	85.3	38.2	82.4	91.2	73.5
10	Youngstown	43	100.0	92.1	45.9	84.2	60.5	68.4
11	Ann Arbor	49	100.0	100.0	65.1	86.0	97.7	69.8
11	Battle Creek	86	98.4	95.2	73.0	87.3	88.9	77.8
11	Detroit	93	95.0	88.8	21.3	70.9	53.8	66.3
12	Chicago West Side	73	94.4	96.3	<u>83.3</u>	94.4	22.2	64.8
12	Madison	48	97.6	95.0	31.7	95.1	73.2	65.9
12	Milwaukee	26	81.8	86.4	13.6	77.3	59.1	63.6
12	North Chicago	129	100.0	88.4	59.8	76.8	78.6	41.1
16	Gulf Coast	41	93.8	93.8	75.0	93.8	87.5	62.5
16	Houston	59	95.7	95.7	51.1	83.0	25.5	87.2
16	Little Rock	42	88.2	91.2	51.5	88.2	82.4	76.5
17	Dallas	82	96.7	91.9	67.7	56.5	48.4	69.4
17	Waco	69	100.0	95.2	33.3	100.0	61.9	61.9
19	Denver	77	97.9	97.9	60.4	93.8	60.4	64.6
19	Fort Harrison	20	100.0	100.0	38.5	61.5	69.2	84.6
19	Grand Junction	34	100.0	100.0	65.2	95.7	78.3	95.7
19	Salt Lake City	61	95.6	93.3	42.2	62.2	82.2	91.1
19	Southern Colorado	121	98.8	85.4	39.0	42.7	53.7	64.6
20	American Lake	50	100.0	97.8	<u>88.9</u>	95.6	91.1	51.1
20	Boise	38	100.0	95.7	69.6	82.6	82.6	87.0
20	Portland	74	100.0	100.0	<u>96.8</u>	73.0	46.0	61.9
20	Seattle	39	100.0	80.8	26.9	65.4	69.2	69.2
21	Palo Alto	34	100.0	100.0	40.0	53.3	100.0	86.7
21	San Francisco	43	96.0	100.0	<u>100.0</u>	92.0	24.0	80.0
22	Greater Los Angeles	48	100.0	100.0	<u>84.6</u>	92.3	89.7	100.0
23	Knoxville	100	100.0	98.7	29.9	76.6	40.3	68.8
23	Minneapolis	74	96.4	83.6	43.6	92.7	14.5	58.2
ALL SITES		3566	96.8	94.6	52.5	78.7	62.2	65.6
SITE AVERAGE		68.6	96.7	94.5	53.7	79.4	61.7	67.9
SITE STD. DEV.		31.4	4.0	5.4	22.5	16.5	23.5	17.4

Shaded values do not meet the threshold level (25%) for the minimum standard. Bold/Underlined values represent positive outlier.

Source: Client Interview

TABLE 2-15B. THERAPEUTIC SERVICES

VISN	SITE	FOLLOW- UP VETS #	MEDICATN MGMT %	MEDICAL SCREEN %	SEEN FOR SUB. ABUSE %	HOUSING SUPPORT %	VOCATION SUPPORT %
1	Bedford	134	83.0	58.0	68.0	56.0	34.0
1	Brockton	68	86.7	78.3	8.3	36.7	13.3
1	Togus	26	100.0	100.0		30.8	11.5
1	West Haven	54	86.4	72.7	45.5	61.4	43.2
2	Albany	48	90.2	78.0	46.3	65.9	39.0
2	Buffalo	72	67.9	51.8	32.1	41.1	19.6
2	Canandaigua	122	76.9	88.0	16.7	29.6	10.2
2	Syracuse	53	52.3	43.2	22.7	36.4	13.6
3	Brooklyn	79	73.8	54.8	7.1	23.8	4.8
3	Montrose	121	93.0	96.0	9.0	16.0	7.0
3	New Jersey	91	91.0	66.7	21.8	47.4	19.2
4	Coatesville	83	85.1	87.5	45.8	77.1	12.5
4	Pittsburgh	126	96.1	52.9	13.7	23.5	3.9
5	Perry Point	114	95.9	89.8	57.1	92.9	63.3
6	Salem	35	61.5	80.8	73.1	61.5	23.1
6	Salisbury	46	81.3	62.5	28.1	81.3	12.5
7	Atlanta	66	92.3	82.7	25.0	36.5	13.5
7	Augusta	73	82.8	75.9	44.8	79.3	37.9
7	Tuskegee	83	27.7	31.9	44.7	48.9	25.5
8	Gainesville	70	98.4	85.7	23.8	20.6	
10	Chillicothe	62	87.2	40.0	5.0	60.0	40.0
10	Cincinnati	66	71.2	46.2	19.2	57.7	17.3
10	Cleveland	144	73.3	81.4	25.6	44.2	26.7
10	Columbus	22	42.9		21.4	50.0	35.7
10	Dayton	55	64.7	58.8	2.9	32.4	11.8
10	Youngstown	43	73.7	86.8	50.0	31.6	15.8
11	Ann Arbor	49	97.7	93.0	27.9	79.1	27.9
11	Battle Creek	86	66.7	59.7	39.7	71.4	33.3
11	Detroit	93	90.0	84.6	26.3	40.5	5.0
12	Chicago West Side	73	88.9	70.4	35.2	42.6	13.0
12	Madison	48	95.1	90.2	41.5	63.4	17.1
12	Milwaukee	26	81.8	63.6	27.3	27.3	9.1
12	North Chicago	129	63.4	72.3	24.1	55.4	18.8
16	Gulf Coast	41	62.5	56.3	50.0	37.5	25.0
16	Houston	59	91.5	95.7	31.9	46.8	12.8
16	Little Rock	42	91.2	91.2	29.4	67.6	23.5
17	Dallas	82	85.5	87.1	43.5	37.1	9.7
17	Waco	69	100.0	66.7	19.0	42.9	23.8
19	Denver	77	81.3	79.2	20.8	39.6	20.8
19	Fort Harrison	20	61.5	46.2	7.7	23.1	30.8
19	Grand Junction	34	78.3	95.7	30.4	8.7	17.4
19	Salt Lake City	61	100.0	97.8	46.7	66.7	13.3
19	Southern Colorado	121	73.2	70.7	14.6	31.7	14.6
20	American Lake	50	97.8	64.4	22.2	31.1	
20	Boise	38	95.7	65.2	13.0	43.5	4.3
20	Portland	74	90.5	92.1	30.2	55.6	15.9
20	Seattle	39	88.5	76.9	11.5	23.1	
21	Palo Alto	34	80.0	93.3	46.7	100.0	13.3
21	San Francisco	43	96.0	100.0	36.0	52.0	4.0
22	Greater Los Angeles	48	97.4	97.4	23.1	79.5	38.5
23	Knoxville	100	63.6	80.5	36.4	32.5	23.4
23	Minneapolis	74	90.9	60.0	10.9	54.5	10.9
ALL SITES		3566	82.0	74.9	29.4	47.8	19.4
SITE AVERAGE		68.6	81.6	74.5	29.5	48.0	20.0
SITE STD. DEV.		31.4	15.5	17.6	16.0	20.4	12.3

Source: Client Interview

TABLE 2-16. CLIENT RATED THERAPEUTIC ALLIANCE

6 Month Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2+4)	4 Change at Follow-up	5 Percent Change (4/2)
1	Bedford	94	38.78	45.71	6.94	17.9%
1	Brockton	19	35.49	42.42	6.93	19.5%
1	Togus	25	33.49	39.23	5.74	17.1%
1	West Haven	16	39.16	48.05	8.90	22.7%
2	Albany	17	38.35	45.71	7.36	19.2%
2	Buffalo	40	39.43	45.32	5.89	15.0%
2	Canandaigua	50	33.73	35.26	1.53	4.5%
2	Syracuse	27	36.44	41.47	5.03	13.8%
3	Brooklyn	43	34.64	38.97	4.33	12.5%
3	Montrose	57	31.85	28.39	-3.46	-10.9%
3	New Jersey	59	33.40	32.46	-0.94	-2.8%
4	Coatesville	69	34.10	36.99	2.89	8.5%
4	Pittsburgh	100	37.17	40.16	2.99	8.0%
5	Perry Point	78	36.18	38.73	2.55	7.0%
6	Salem	21	35.37	39.77	4.39	12.4%
6	Salisbury	30	39.47	43.00	3.53	9.0%
7	Atlanta	35	35.69	43.70	8.01	22.5%
7	Augusta	72	35.80	39.03	3.23	9.0%
7	Tuskegee	62	31.60	33.64	2.04	6.5%
8	Gainesville	54	34.63	36.99	2.36	6.8%
10	Chillicothe	57	38.15	41.78	3.63	9.5%
10	Cincinnati	54	38.39	43.20	4.80	12.5%
10	Cleveland	95	36.90	40.02	3.12	8.4%
10	Columbus	17	35.13	38.57	3.44	9.8%
10	Dayton	53	39.64	47.73	8.09	20.4%
10	Youngstown	37	36.70	42.68	5.98	16.3%
11	Ann Arbor	34	36.98	42.56	5.58	15.1%
11	Battle Creek	53	36.15	41.01	4.86	13.4%
11	Detroit	55	33.53	37.70	4.17	12.4%
12	Chicago West Side	41	36.48	33.58	-2.90	-7.9%
12	Madison	47	37.14	38.04	0.90	2.4%
12	Milwaukee	24	33.74	32.39	-1.35	-4.0%
12	North Chicago	104	35.98	37.49	1.51	4.2%
16	Gulf Coast	30	35.93	45.49	9.56	26.6%
16	Houston	46	35.96	39.14	3.18	8.8%
16	Little Rock	33	34.54	38.82	4.28	12.4%
17	Dallas	70	37.28	37.50	0.21	0.6%
17	Waco	64	36.98	41.92	4.95	13.4%
19	Denver	65	37.08	41.96	4.89	13.2%
19	Fort Harrison	16	36.54	40.59	4.05	11.1%
19	Grand Junction	27	38.91	41.09	2.17	5.6%
19	Salt Lake City	53	36.82	39.79	2.97	8.1%
19	Southern Colorado	102	35.04	35.78	0.74	2.1%
20	American Lake	35	34.29	39.94	5.64	16.5%
20	Boise	36	36.58	41.66	5.07	13.9%
20	Portland	23	36.09	33.90	-2.19	-6.1%
20	Seattle	27	37.86	39.07	1.20	3.2%
21	Palo Alto	29	30.50	26.61	-3.89	-12.7%
21	San Francisco	32	37.44	40.48	3.04	8.1%
22	Greater Los Angeles	35	34.60	38.79	4.20	12.1%
23	Knoxville	88	35.17	39.12	3.95	11.2%
23	Minneapolis	64	32.32	36.10	3.78	11.7%
ALL SITES		2514	35.92	39.38	3.46	9.63%
SITE AVERAGE		48.35	35.95	39.41	3.46	9.43%
SITE STD. DEV.		24.15	2.09	4.33	2.98	8.27%

Change values are least squares means derived from analysis of covariance including site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable

Bold/Underlined values represent positive outliers

Source: Client Interview

TABLE 2-17. FIDELITY TO ASSERTIVE COMMUNITY TREATMENT MODEL.

VISN	SITE	HUMAN RESOURCES	ORGANIZ'L BOUNDARIES	SERVICES	SUB. ABUSE TX	TOTAL SCORE	AVG SCORE
1	Bedford	4.3	4.3	4.3	4.7	96.0	4.40
1	Brockton	4.2	4.7	4.3	3.0	93.0	4.20
1	Togus	4.3	4.6	3.8	2.0	87.0	4.00
1	West Haven	4.5	4.6	4.7	3.7	98.0	4.50
2	Albany	4.0	4.3	3.8	4.3	90.0	4.10
2	Buffalo	2.8	4.1	4.2	1.7	76.0	3.50
2	Canandaigua	3.5	4.0	4.0	3.3	83.0	3.80
2	Syracuse	4.5	3.9	3.2	1.3	77.0	3.50
3	Brooklyn	3.8	4.3	3.3	2.3	80.0	3.60
3	Montrose	3.5	4.9	4.0	1.0	82.0	3.70
3	New Jersey	3.8	4.1	4.2	3.0	86.0	3.90
4	Coatesville	3.5	4.7	3.7	3.7	87.0	4.00
4	Pittsburgh	4.2	4.7	4.0	3.0	91.0	4.10
5	Perry Point	4.5	5.0	4.7	5.0	105.0	4.80
6	Salem	4.3	4.6	3.8	2.3	88.0	4.00
6	Salisbury	4.0	4.0	4.0	3.0	85.0	3.90
7	Atlanta	3.8	4.4	3.7	3.3	86.0	3.90
7	Augusta	4.2	4.4	4.0	5.0	95.0	4.30
7	Tuskegee	3.3	4.9	4.2	2.0	85.0	3.90
8	Gainesville	4.2	4.6	4.2	3.3	92.0	4.20
10	Chillicothe	2.7	4.9	4.2	2.7	83.0	3.80
10	Cincinnati	3.3	3.9	4.2	2.7	80.0	3.60
10	Cleveland	4.5	4.3	3.5	1.7	83.0	3.80
10	Columbus	2.5	3.4	3.8	3.0	71.0	3.20
10	Dayton	3.5	4.4	4.2	2.0	83.0	3.80
10	Youngstown	4.5	4.4	4.0	2.3	89.0	4.00
11	Ann Arbor	4.8	4.6	3.8	3.7	95.0	4.30
11	Battle Creek	3.2	4.7	4.3	2.3	85.0	3.90
11	Detroit	4.0	4.1	3.2	2.0	78.0	3.50
12	Chicago West Side	3.8	3.9	3.7	2.7	80.0	3.60
12	Madison	4.8	4.9	4.2	5.0	103.0	4.70
12	Milwaukee	3.7	4.6	4.7	3.3	92.0	4.20
12	North Chicago	3.8	4.4	3.7	4.3	89.0	4.00
16	Gulf Coast	4.0	5.0	4.5	2.7	94.0	4.30
16	Houston	4.5	4.7	4.0	1.7	89.0	4.00
16	Little Rock	4.3	4.6	3.7	2.7	88.0	4.00
17	Dallas	4.3	4.4	4.2	2.3	89.0	4.00
17	Waco	4.5	4.1	3.8	3.3	89.0	4.00
19	Denver	3.7	4.6	3.8	3.0	86.0	3.90
19	Fort Harrison	2.7	3.9	3.8	1.7	70.0	3.20
19	Grand Junction	4.5	4.4	4.0	2.3	89.0	4.00
19	Salt Lake City	3.8	4.4	3.7	3.7	87.0	4.00
19	Southern Colorado	4.2	4.1	3.7	1.0	79.0	3.60
20	American Lake	4.0	4.7	4.2	2.7	90.0	4.10
20	Boise	4.3	4.7	4.0	3.7	94.0	4.30
20	Portland	4.0	4.3	4.0	4.0	90.0	4.10
20	Seattle	4.0	4.7	4.2	2.7	90.0	4.10
21	Palo Alto	3.5	4.3	4.3	2.7	85.0	3.90
21	San Francisco	3.5	4.7	4.2	2.7	87.0	4.00
22	Greater Los Angeles	3.8	4.6	3.2	3.7	85.0	3.90
23	Knoxville	3.7	4.3	4.0	3.0	85.0	3.90
23	Minneapolis	4.3	4.7	4.2	2.3	91.0	4.10
SITE AVERAGE		3.92	4.4	4.0	2.9	87.1	3.96
SITE STD. DEV.		0.53	0.3	0.3	1.0	6.7	0.31

Source: Assertive Community Treatment Fidelity Scale from the FY 2002 Annual Progress Report.
Total score range: 22-110

Shaded values exceed one standard deviation from the mean in undesired direction

TABLE 2-18. VA HOSPITAL USE 183 DAYS PRE -vs- POST-ENTRY PTF FY02

VISN	SITE	Total N FY02	1 N 183 Days	2 Pre-IDF MH Days/ Veteran	3 Post-IDF MH Days/ Veteran	4 Change MH Days/ Veteran (col.3-2)	5 % Change MH Days (4/2)	6 Change MH Cost*/ Inp't Veteran (4x\$866)
1	Bedford	134	108	37.0	21.3	-15.7	-42.5%	(\$13,623)
1	Brockton	68	45	110.6	13.0	<u>-97.6</u>	<u>-88.3%</u>	(\$84,522)
1	Togus	26	25	67.0	30.6	-36.4	-54.4%	(\$31,557)
1	West Haven	54	24	72.2	25.4	-46.8	-64.8%	(\$40,522)
2	Albany	48	28	29.2	10.9	-18.3	-62.7%	(\$15,866)
2	Buffalo	72	52	14.0	4.3	-9.6	-69.0%	(\$8,344)
2	Canandaigua	122	83	67.8	6.5	-61.3	<u>-90.4%</u>	(\$53,056)
2	Syracuse	53	38	35.4	16.1	-19.4	-54.7%	(\$16,773)
3	Brooklyn	79	76	46.7	19.1	-27.6	-59.2%	(\$23,906)
3	Montrose	121	90	139.0	23.6	<u>-115.4</u>	<u>-83.0%</u>	(\$99,927)
3	New Jersey	91	86	27.6	12.0	-15.6	-56.5%	(\$13,534)
4	Coatesville	83	71	75.6	14.3	-61.4	-81.2%	(\$53,143)
4	Pittsburgh	126	112	69.0	15.8	-53.3	-77.1%	(\$46,115)
5	Perry Point	114	100	134.3	12.7	<u>-121.6</u>	<u>-90.5%</u>	(\$105,288)
6	Salem	35	21	24.1	5.8	-18.3	-75.9%	(\$15,835)
6	Salisbury	46	38	123.6	35.9	<u>-87.6</u>	-70.9%	(\$75,889)
7	Atlanta	66	46	41.3	14.9	-26.5	-64.0%	(\$22,911)
7	Augusta	73	67	124.6	17.9	<u>-106.6</u>	<u>-85.6%</u>	(\$92,339)
7	Tuskegee	83	69	46.1	22.4	-23.7	-51.5%	(\$20,546)
8	Gainesville	70	68	31.3	6.0	-25.3	-80.8%	(\$21,917)
10	Chillicothe	62	54	60.2	25.7	-34.5	-57.3%	(\$29,893)
10	Cincinnati	66	57	22.3	10.3	-11.9	-53.6%	(\$10,346)
10	Cleveland	144	125	48.7	15.2	-33.5	-68.8%	(\$28,987)
10	Columbus	22	18	24.4	13.7	-10.7	-43.9%	(\$9,285)
10	Dayton	55	48	14.3	8.3	-6.0	-41.8%	(\$5,160)
10	Youngstown	43	43	6.0	2.8	<u>-3.2</u>	-53.7%	(\$2,799)
11	Ann Arbor	49	47	36.7	10.3	-26.4	-72.1%	(\$22,903)
11	Battle Creek	86	66	81.5	24.2	-57.2	-70.2%	(\$49,559)
11	Detroit	93	84	37.3	13.6	-23.7	-63.5%	(\$20,506)
12	Chicago West Side	73	64	44.0	15.2	-28.8	-65.5%	(\$24,952)
12	Madison	48	44	38.3	7.2	-31.1	-81.2%	(\$26,925)
12	Milwaukee	26	22	12.7	12.1	<u>-0.6</u>	-5.0%	(\$551)
12	North Chicago	129	123	67.2	9.4	-57.8	<u>-85.9%</u>	(\$50,031)
16	Gulf Coast	41	16	30.7	14.8	-15.9	-51.9%	(\$13,802)
16	Houston	59	52	22.6	8.8	-13.8	-61.2%	(\$11,974)
16	Little Rock	42	37	37.5	24.9	-12.5	-33.4%	(\$10,837)
17	Dallas	82	68	41.7	9.7	-32.0	-76.8%	(\$27,725)
17	Waco	69	64	51.5	5.8	-45.7	<u>-88.7%</u>	(\$39,579)
19	Denver	77	72	53.4	17.2	-36.2	-67.8%	(\$31,344)
19	Fort Harrison	20	16	17.6	7.7	-9.9	-56.3%	(\$8,573)
19	Grand Junction	34	30	14.2	5.4	-8.8	-62.1%	(\$7,621)
19	Salt Lake City	61	54	21.4	11.4	-10.0	-46.6%	(\$8,644)
19	Southern Colorado	121	108	8.3	3.2	<u>-5.1</u>	-61.9%	(\$4,450)
20	American Lake	50	47	68.5	16.6	-51.9	-75.8%	(\$44,921)
20	Boise	38	36	12.6	8.9	<u>-3.7</u>	-29.2%	(\$3,175)
20	Portland	74	69	36.3	13.3	-23.0	-63.3%	(\$19,918)
20	Seattle	39	36	24.6	4.0	-20.6	<u>-83.6%</u>	(\$17,825)
21	Palo Alto	34	15	52.1	19.9	-32.3	-61.9%	(\$27,943)
21	San Francisco	43	31	41.6	7.5	-34.2	-82.0%	(\$29,584)
22	Greater Los Angeles	48	45	62.9	32.6	-30.3	-48.2%	(\$26,249)
23	Knoxville	100	82	25.7	8.4	-17.2	-67.1%	(\$14,933)
23	Minneapolis	74	64	72.3	5.3	<u>-67.1</u>	<u>-92.7%</u>	(\$58,090)
ALL SITES		3566.0	2984	49.0	13.6	-35.4	-72.2%	(\$50,839)
SITE AVERAGE		68.6	57	48.2	13.9	-34.3	-64.9%	(\$29,706)
SITE STD. DEV.		31.1	28	32.1	7.7	28.7	17.3%	\$24,858

*FY 2002 National general psychiatry per diem=\$866(NMHPPMS).

Total N FY02=IDF3 Table <10/01/02 (including terminated clients)

Shaded values exceed one standard deviation from the mean in undesired direction. Bold /Underlined values represent positive outliers.

Source: VA automated Patient Treatment File FY02; NMHPPMS FY02

TABLE 2-18a. VA HOSPITAL USE 365 DAYS PRE -vs- POST-ENTRY PTF FY02

VISN	SITE	Total N FY02	1 N 365 Days	2 Pre-IDF MH Days/ Veteran	3 Post-IDF MH Days/ Veteran	4 Change MH Days/ Veteran (col 3-2)	5 % Change MH Days/ (4/2)	6 Change MH Cost*/ Inp't Veteran (4x\$866)
1	Bedford	134	89	61.9	33.8	-28.1	-45.4%	(\$24,336)
1	Brockton	68	44	202.8	28.3	-174.4	-86.0%	(\$151,058)
1	Togus	26	23	118.6	45.6	-73.0	-61.5%	(\$63,218)
1	West Haven	54	24	114.5	40.5	-74.1	-64.7%	(\$64,156)
2	Albany	48	27	41.7	15.0	-26.7	-64.1%	(\$23,157)
2	Buffalo	72	49	16.8	9.1	-7.8	-46.1%	(\$6,716)
2	Canandaigua	122	77	125.6	11.5	-114.1	-90.9%	(\$98,836)
2	Syracuse	53	36	44.1	25.5	-18.6	-42.2%	(\$16,117)
3	Brooklyn	79	72	65.7	34.7	-31.0	-47.2%	(\$26,822)
3	Montrose	121	79	268.8	51.7	-217.0	-80.8%	(\$187,955)
3	New Jersey	91	79	55.7	29.0	-26.7	-48.0%	(\$23,141)
4	Coatesville	83	68	131.6	22.0	-109.6	-83.3%	(\$94,878)
4	Pittsburgh	126	101	107.3	26.4	-80.8	-75.4%	(\$70,009)
5	Perry Point	114	93	226.6	28.0	-198.6	-87.6%	(\$172,017)
6	Salisbury	46	35	241.6	53.9	-187.7	-77.7%	(\$162,585)
7	Atlanta	66	46	48.7	24.4	-24.3	-49.9%	(\$21,066)
7	Augusta	73	65	200.7	27.8	-172.9	-86.2%	(\$149,711)
7	Tuskegee	83	60	77.5	36.5	-41.0	-52.9%	(\$35,506)
8	Gainesville	70	67	50.2	12.2	-37.9	-75.6%	(\$32,856)
10	Chillicothe	62	52	102.9	43.1	-59.7	-58.1%	(\$51,727)
10	Cincinnati	66	51	29.6	16.9	-12.6	-42.8%	(\$10,952)
10	Cleveland	144	107	83.5	30.4	-53.1	-63.6%	(\$46,003)
10	Columbus	22	18	39.8	24.8	-15.1	-37.8%	(\$13,038)
10	Dayton	55	46	20.7	16.8	-3.9	-18.9%	(\$3,389)
10	Youngstown	43	36	9.6	9.6	0.0	0.0%	\$0
11	Ann Arbor	49	44	63.3	20.7	-42.7	-67.4%	(\$36,943)
11	Battle Creek	86	64	150.0	47.5	-102.5	-68.3%	(\$88,751)
11	Detroit	93	82	54.8	19.8	-35.0	-63.9%	(\$30,321)
12	Chicago West Side	73	56	68.3	28.6	-39.7	-58.2%	(\$34,408)
12	Madison	48	36	69.1	11.1	-57.9	-83.9%	(\$50,180)
12	Milwaukee	26	16	24.4	28.3	3.9	15.9%	\$3,356
12	North Chicago	129	121	98.0	18.7	-79.3	-80.9%	(\$68,672)
16	Houston	59	41	22.9	13.3	-9.6	-41.9%	(\$8,322)
16	Little Rock	42	22	61.3	37.4	-23.9	-39.0%	(\$20,705)
17	Dallas	82	62	55.3	15.4	-39.9	-72.1%	(\$34,570)
17	Waco	69	37	109.4	20.5	-88.9	-81.3%	(\$76,957)
19	Denver	77	67	73.1	25.8	-47.3	-64.8%	(\$40,999)
19	Grand Junction	34	27	23.6	11.8	-11.8	-50.0%	(\$10,200)
19	Salt Lake City	61	42	34.0	17.4	-16.5	-48.7%	(\$14,330)
19	Southern Colorado	121	100	10.2	6.6	-3.6	-35.2%	(\$3,109)
20	American Lake	50	45	84.9	22.0	-62.9	-74.1%	(\$54,481)
20	Boise	38	31	24.5	13.9	-10.7	-43.5%	(\$9,247)
20	Portland	74	63	46.3	19.5	-26.8	-57.8%	(\$23,176)
20	Seattle	39	34	42.3	15.4	-26.9	-63.7%	(\$23,331)
21	San Francisco	43	31	57.8	8.6	-49.2	-85.1%	(\$42,602)
22	Greater Los Angeles	48	43	96.0	42.0	-54.0	-56.3%	(\$46,764)
23	Knoxville	100	61	52.5	14.9	-37.6	-71.6%	(\$32,567)
23	Minneapolis	74	60	107.4	7.8	-99.6	-92.8%	(\$86,254)
ALL SITES		3436	2629	86.2	24.2	-62.0	-72.0%	(\$53,689)
SITE AVERAGE		71.6	54.8	81.6	24.3	-57.3	-59.8%	(\$49,641)
SITE STD. DEV.		30.7	25.0	60.6	12.0	54.7	22.2%	\$46,880

*FY 2002 National general psychiatry per diem=\$866(NMHPPMS).

Total N FY02=IDF3 Table <10/01/02 (including terminated)

Shaded values exceed one standard deviation from the mean in undesired direction. Bold /Underlined values represent positive outliers.

Source: VA automated Patient Treatment File FY02; NMHPPMS FY02

TABLE 2-18b. VA HOSPITAL USE 548 DAYS PRE -vs- POST-ENTRY PTF FY02

VISN	SITE	Total N FY02	1 N 548 Days	2 Pre-IDF MH Days/ Veteran	3 Post-IDF MH Days/ Veteran	4 Change MH Days/ Veteran (col.3-2)	5 % Change MH Days/ (4/2)	6 Change MH Cost*/ Inp't Veteran (4x\$866)
1	Bedford	134	84	88.1	41.6	-46.5	-52.8%	(\$40,290)
1	Brockton	68	43	287.9	42.0	<u>-245.9</u>	<u>-85.4%</u>	(\$212,976)
1	Togus	26	22	158.6	61.8	-96.8	-61.0%	(\$83,805)
1	West Haven	54	24	142.5	50.0	-92.5	-64.9%	(\$80,105)
2	Albany	48	24	50.4	18.5	-31.8	-63.2%	(\$27,568)
2	Buffalo	72	43	21.9	13.0	-9.0	-40.8%	(\$7,754)
2	Canandaigua	122	73	185.0	16.8	<u>-168.2</u>	<u>-90.9%</u>	(\$145,630)
2	Syracuse	53	34	49.7	30.0	-19.7	-39.7%	(\$17,091)
3	Brooklyn	79	64	83.3	50.3	-32.9	-39.5%	(\$28,510)
3	Montrose	121	73	392.4	81.6	<u>-310.8</u>	-79.2%	(\$269,136)
3	New Jersey	91	30	72.4	39.4	-33.0	-45.5%	(\$28,549)
4	Coatesville	83	68	179.8	27.5	-152.3	<u>-84.7%</u>	(\$131,861)
4	Pittsburgh	126	93	137.7	36.0	-101.7	-73.8%	(\$88,062)
5	Perry Point	114	82	331.4	45.8	<u>-285.6</u>	<u>-86.2%</u>	(\$247,338)
6	Salisbury	46	32	357.0	71.6	<u>-285.4</u>	-79.9%	(\$247,135)
7	Atlanta	66	46	61.0	31.6	-29.4	-48.2%	(\$25,472)
7	Augusta	73	62	281.3	35.0	<u>-246.3</u>	<u>-87.6%</u>	(\$213,301)
7	Tuskegee	83	55	102.3	45.8	-56.4	-55.2%	(\$48,874)
8	Gainesville	70	66	64.8	14.8	-50.0	-77.2%	(\$43,313)
10	Chillicothe	62	49	147.7	46.4	-101.2	-68.6%	(\$87,678)
10	Cincinnati	66	42	31.8	23.9	-7.9	-24.7%	(\$6,804)
10	Cleveland	144	67	163.8	52.0	-111.8	-68.3%	(\$96,837)
10	Columbus	22	18	63.8	33.6	-30.2	-47.3%	(\$26,172)
10	Dayton	55	40	31.2	25.1	-6.2	-19.8%	(\$5,348)
11	Ann Arbor	49	43	80.1	26.6	-53.6	-66.9%	(\$46,401)
11	Battle Creek	86	59	219.7	67.1	-152.6	-69.5%	(\$132,131)
11	Detroit	93	80	70.3	22.3	-48.0	-68.3%	(\$41,600)
12	Chicago West Side	73	53	86.8	41.6	-45.2	-52.1%	(\$39,150)
12	Madison	48	35	89.9	17.6	-72.4	-80.5%	(\$62,674)
12	North Chicago	129	115	135.4	28.3	-107.1	-79.1%	(\$92,775)
16	Houston	59	37	38.7	17.9	-20.8	-53.7%	(\$17,999)
16	Little Rock	42	12	72.5	35.0	-37.5	-51.7%	(\$32,475)
17	Dallas	82	59	67.7	21.1	-46.6	-68.9%	(\$40,364)
17	Waco	69	36	139.2	34.4	-104.8	-75.3%	(\$90,762)
19	Denver	77	65	84.8	35.8	-49.0	-57.8%	(\$42,421)
19	Grand Junction	34	24	26.4	15.1	-11.3	-42.7%	(\$9,779)
19	Salt Lake City	61	39	29.6	24.3	-5.4	-18.1%	(\$4,641)
19	Southern Colorado	121	97	9.9	8.7	<u>-1.2</u>	<u>-12.0%</u>	(\$1,027)
20	American Lake	50	41	105.6	28.3	-77.3	-73.2%	(\$66,914)
20	Boise	38	29	37.0	19.4	-17.5	-47.4%	(\$15,170)
20	Portland	74	56	52.8	28.9	-23.8	-45.2%	(\$20,645)
20	Seattle	39	33	50.5	25.1	-25.4	-50.2%	(\$21,965)
21	San Francisco	43	31	63.5	8.9	-54.6	<u>-86.0%</u>	(\$47,295)
22	Greater Los Angeles	48	42	127.8	49.0	-78.9	-61.7%	(\$68,311)
23	Knoxville	100	50	72.9	15.4	-57.5	-78.9%	(\$49,812)
23	Minneapolis	74	57	136.0	10.8	-125.2	<u>-92.1%</u>	(\$108,402)
ALL SITES		3367	2327	122.1	33.2	-88.9	-72.8%	(\$76,970)
SITE AVERAGE		73.2	50.6	114.8	33.0	-81.9	-61.2%	(\$70,920)
SITE STD. DEV.		30.0	22.2	89.8	16.6	79.2	19.9%	\$68,588

*FY 2002 National general psychiatry per diem=\$866(NMHPMS).

Total N FY02=IDF3 Table <10/01/02 (including terminated)

Shaded values exceed one standard deviation from the mean in undesired direction. Bold /Underlined values represent positive outliers.

Source: VA automated Patient Treatment File FY02; NMHPMS FY02

TABLE 2-18c. VA HOSPITAL USE 730 DAYS PRE -vs- POST-ENTRY PTF FY02

VISN	SITE	Total N FY02	1 N 730 Days	2 Pre-IDF MH Days/ Veteran	3 Post-IDF MH Days/ Veteran	4 Change MH Days/ Veteran (col.3-2)	5 % Change MH Days/ (4/2)	6 Change MH Cost*/ Inp't Veteran (4x\$866)
1	Bedford	134	78	105.5	50.8	-54.7	-51.9%	(\$47,375)
1	Brockton	68	39	379.3	56.5	<u>-322.9</u>	<u>-85.1%</u>	(\$279,607)
1	Togus	26	21	198.8	76.5	-122.3	-61.5%	(\$105,941)
1	West Haven	54	24	163.9	64.5	-99.4	-60.7%	(\$86,095)
2	Albany	48	16	72.4	32.6	-39.8	-54.9%	(\$34,424)
2	Buffalo	72	40	28.0	13.8	-14.3	-50.9%	(\$12,341)
2	Canandaigua	122	70	265.0	23.1	<u>-241.9</u>	<u>-91.3%</u>	(\$209,485)
2	Syracuse	53	30	57.1	40.3	-16.8	-29.4%	(\$14,549)
3	Brooklyn	79	54	105.4	64.3	-41.1	-39.0%	(\$35,554)
3	Montrose	121	66	507.0	118.6	<u>-388.4</u>	-76.6%	(\$336,336)
3	New Jersey	91	29	72.3	42.6	-29.8	-41.2%	(\$25,801)
4	Coatesville	83	68	217.4	36.6	-180.8	<u>-83.1%</u>	(\$156,542)
4	Pittsburgh	126	88	167.7	42.7	-125.0	-74.5%	(\$108,220)
5	Perry Point	114	76	415.5	60.1	<u>-355.4</u>	<u>-85.5%</u>	(\$307,772)
6	Salisbury	46	30	438.9	96.2	<u>-342.6</u>	-78.1%	(\$296,720)
7	Atlanta	66	44	73.7	40.1	-33.5	-45.5%	(\$29,050)
7	Augusta	73	62	357.9	44.4	<u>-313.5</u>	<u>-87.6%</u>	(\$271,463)
7	Tuskegee	83	51	126.7	54.1	-72.6	-57.3%	(\$62,878)
8	Gainesville	70	61	75.8	16.7	-59.2	-78.0%	(\$51,236)
10	Chillicothe	62	48	187.1	53.5	-133.6	-71.4%	(\$115,665)
10	Cincinnati	66	37	41.9	34.0	-7.9	-18.9%	(\$6,858)
10	Cleveland	144	50	242.6	72.6	-170.0	-70.1%	(\$147,237)
10	Columbus	22	15	83.7	47.1	-36.6	-43.7%	(\$31,696)
10	Dayton	55	34	43.0	30.1	-12.9	-30.1%	(\$11,207)
11	Ann Arbor	49	40	102.5	30.4	-72.1	-70.3%	(\$62,439)
11	Battle Creek	86	56	289.8	88.1	-201.7	-69.6%	(\$174,669)
11	Detroit	93	65	92.1	29.1	-63.0	-68.4%	(\$54,585)
12	Chicago West Side	73	47	99.0	44.6	-54.4	-54.9%	(\$47,077)
12	Madison	48	34	95.9	24.4	-71.5	-74.6%	(\$61,919)
12	North Chicago	129	107	175.6	37.7	-137.9	-78.5%	(\$119,435)
17	Dallas	82	57	85.1	26.8	-58.3	-68.5%	(\$50,486)
17	Waco	69	36	157.9	50.6	-107.3	-68.0%	(\$92,927)
19	Denver	77	60	94.3	45.9	-48.5	-51.4%	(\$41,958)
19	Grand Junction	34	18	32.3	20.4	-11.8	-36.7%	(\$10,248)
19	Salt Lake City	61	29	45.3	25.5	-19.8	-43.7%	(\$17,171)
19	Southern Colorado	121	89	9.3	11.5	2.2	24.0%	\$1,927
20	American Lake	50	39	113.9	30.3	-83.6	-73.4%	(\$72,411)
20	Boise	38	28	43.3	24.0	-19.4	-44.7%	(\$16,763)
20	Portland	74	54	61.7	34.6	-27.1	-43.9%	(\$23,462)
20	Seattle	39	31	63.6	30.2	-33.4	-52.5%	(\$28,913)
21	San Francisco	43	27	70.1	11.1	-59.0	<u>-84.2%</u>	(\$51,126)
22	Greater Los Angeles	48	41	158.0	58.4	-99.7	-63.1%	(\$86,325)
23	Knoxville	100	46	93.4	20.2	-73.2	-78.3%	(\$63,387)
23	Minneapolis	74	54	160.4	14.1	-146.2	<u>-91.2%</u>	(\$126,644)
ALL SITES		3266	2089	156.9	42.6	-114.3	-72.9%	(\$98,974)
SITE AVERAGE		74.2	47	147.0	42.5	-104.6	-60.4%	(\$90,547)
SITE STD. DEV.		30.5	21	118.8	23.1	103.2	22.3%	\$89,341

*FY 2002 National general psychiatry per diem=\$866(NMHPMS).

Total N FY02=IDF3 Table <10/01/02 (including terminated)

Shaded values exceed one standard deviation from the mean in undesired direction. Bold /Underlined values represent positive outliers.

Source: VA automated Patient Treatment File FY02; NMHPMS FY02

TABLE 2-19. BRIEF PSYCHIATRIC RATING SCALE

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	126	34.14	27.15	-6.99	-20.48%
1	Brockton	32	39.59	28.86	<u>-10.73</u>	<u>-27.11%</u>
1	Togus	26	32.73	22.68	-10.05	-30.72%
1	West Haven	20	39.84	38.52	-1.32	-3.30%
2	Albany	18	50.89	53.71	2.83	5.55%
2	Buffalo	47	34.06	32.36	-1.71	-5.01%
2	Canandaigua	65	38.72	37.11	-1.61	-4.15%
2	Syracuse	40	43.15	44.03	0.88	2.04%
3	Brooklyn	79	42.12	39.43	-2.69	-6.38%
3	Montrose	84	48.35	54.63	6.28	12.98%
3	New Jersey	89	41.89	37.65	-4.25	-10.14%
4	Coatesville	82	43.61	42.99	-0.62	-1.42%
4	Pittsburgh	125	36.96	32.55	-4.41	-11.93%
5	Perry Point	114	45.18	40.92	-4.27	-9.44%
6	Salem	23	38.91	33.91	-5.00	-12.86%
6	Salisbury	41	39.00	42.00	3.00	7.69%
7	Atlanta	45	35.41	21.20	<u>-14.21</u>	<u>-40.12%</u>
7	Augusta	73	29.70	17.70	<u>-12.00</u>	<u>-40.39%</u>
7	Tuskegee	83	36.87	36.60	-0.27	-0.72%
8	Gainesville	70	48.11	35.06	<u>-13.05</u>	<u>-27.13%</u>
10	Chillicothe	62	33.77	27.98	-5.79	-17.14%
10	Cincinnati	65	34.16	32.41	-1.75	-5.13%
10	Cleveland	133	35.42	36.38	0.96	2.71%
10	Columbus	20	43.99	27.27	<u>-16.72</u>	<u>-38.00%</u>
10	Dayton	55	28.15	14.56	<u>-13.58</u>	<u>-48.25%</u>
10	Youngstown	41	42.80	34.30	-8.51	-19.87%
11	Ann Arbor	48	42.25	34.01	-8.24	-19.50%
11	Battle Creek	82	37.76	31.85	-5.90	-15.63%
11	Detroit	92	32.74	23.00	<u>-9.74</u>	<u>-29.75%</u>
12	Chicago West Side	57	38.36	43.48	5.12	13.35%
12	Madison	48	36.86	35.44	-1.42	-3.85%
12	Milwaukee	26	50.08	60.10	10.03	20.02%
12	North Chicago	127	33.61	24.83	<u>-8.78</u>	<u>-26.13%</u>
16	Gulf Coast	38	43.16	37.57	-5.59	-12.95%
16	Houston	58	42.98	40.46	-2.52	-5.87%
16	Little Rock	38	35.26	25.55	-9.71	-27.54%
17	Dallas	77	38.59	30.08	-8.51	-22.05%
17	Waco	69	42.33	43.46	1.12	2.65%
19	Denver	75	34.79	25.53	<u>-9.26</u>	<u>-26.61%</u>
19	Fort Harrison	18	46.94	61.16	14.22	30.29%
19	Grand Junction	33	58.45	57.20	-1.25	-2.15%
19	Salt Lake City	60	55.65	56.07	0.42	0.75%
19	Southern Colorado	120	33.64	23.23	<u>-10.41</u>	<u>-30.95%</u>
20	American Lake	50	46.25	51.31	5.06	10.93%
20	Boise	38	36.03	32.70	-3.33	-9.24%
20	Portland	42	39.95	37.07	-2.88	-7.21%
20	Seattle	39	57.92	62.27	4.34	7.50%
21	Palo Alto	31	48.65	51.23	2.59	5.32%
21	San Francisco	41	43.92	39.60	-4.32	-9.84%
22	Greater Los Angeles	45	46.27	41.24	-5.02	-10.86%
23	Knoxville	100	39.57	30.63	<u>-8.94</u>	<u>-22.59%</u>
23	Minneapolis	71	45.10	53.79	8.69	19.26%
ALL SITES		3181	39.70	35.67	-4.13	-10.39%
SITE AVERAGE		61.17	40.86	37.40	-3.46	-10.03%
SITE STD DEVIATION		31.09	6.72	11.50	6.51	16.84%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site the median site on this variable.

Bold Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-20. SYMPTOM SEVERITY

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	126	2.02	1.71	-0.31	-15.47%
1	Brockton	28	1.63	1.24	-0.39	-23.74%
1	Togus	26	1.98	1.52	-0.46	-23.26%
1	West Haven	20	1.99	1.73	-0.26	-13.08%
2	Albany	18	2.23	1.99	-0.24	-10.87%
2	Buffalo	46	2.09	2.13	0.05	2.21%
2	Canandaigua	63	1.94	1.73	-0.21	-10.81%
2	Syracuse	40	2.31	2.32	0.01	0.37%
3	Brooklyn	76	2.16	2.05	-0.11	-5.16%
3	Montrose	75	1.98	1.99	0.00	0.16%
3	New Jersey	80	2.08	1.84	-0.24	-11.55%
4	Coatesville	80	1.97	1.80	-0.17	-8.69%
4	Pittsburgh	110	1.72	1.36	-0.36	-21.04%
5	Perry Point	93	1.63	1.51	-0.12	-7.39%
6	Salem	23	2.09	2.03	-0.06	-2.85%
6	Salisbury	37	1.68	1.62	-0.06	-3.58%
7	Atlanta	42	2.24	2.18	-0.06	-2.60%
7	Augusta	73	1.84	1.69	-0.15	-8.39%
7	Tuskegee	83	2.11	2.10	-0.01	-0.31%
8	Gainesville	70	2.18	1.61	-0.57	-26.34%
10	Chillicothe	62	1.78	1.58	-0.20	-11.23%
10	Cincinnati	65	2.12	2.11	-0.01	-0.68%
10	Cleveland	120	1.73	1.64	-0.10	-5.49%
10	Columbus	19	2.47	2.46	-0.01	-0.43%
10	Dayton	55	1.80	1.50	-0.31	-17.11%
10	Youngstown	40	2.05	1.73	-0.32	-15.61%
11	Ann Arbor	47	2.03	1.69	-0.34	-16.78%
11	Battle Creek	78	1.88	1.64	-0.24	-12.86%
11	Detroit	90	1.90	1.52	-0.38	-19.94%
12	Chicago West Side	57	1.94	1.99	0.05	2.39%
12	Madison	48	1.86	1.83	-0.03	-1.67%
12	Milwaukee	26	1.92	1.76	-0.15	-8.01%
12	North Chicago	122	1.79	1.49	-0.31	-17.11%
16	Gulf Coast	38	2.22	1.99	-0.24	-10.70%
16	Houston	56	2.24	1.97	-0.27	-11.88%
16	Little Rock	37	2.07	1.80	-0.27	-12.86%
17	Dallas	76	2.08	1.72	-0.36	-17.21%
17	Waco	68	2.16	2.13	-0.03	-1.48%
19	Denver	75	1.94	1.67	-0.27	-14.05%
19	Fort Harrison	19	2.33	2.67	0.34	14.74%
19	Grand Junction	33	2.45	2.48	0.02	0.98%
19	Salt Lake City	60	2.21	2.28	0.07	3.20%
19	Southern Colorado	115	1.94	1.67	-0.26	-13.61%
20	American Lake	46	2.11	1.90	-0.21	-10.03%
20	Boise	37	2.01	1.91	-0.10	-4.79%
20	Portland	32	1.96	1.79	-0.17	-8.56%
20	Seattle	38	2.44	2.35	-0.09	-3.75%
21	Palo Alto	30	2.07	2.08	0.01	0.59%
21	San Francisco	39	1.94	1.75	-0.19	-9.78%
22	Greater Los Angeles	39	2.23	2.23	0.00	-0.12%
23	Knoxville	98	1.90	1.59	-0.31	-16.22%
23	Minneapolis	70	2.01	1.99	-0.02	-0.78%
ALL SITES		3044	1.80	1.61	-0.19	-10.64%
SITE AVERAGE		58.54	2.03	1.87	-0.16	-8.33%
SITE STD DEVIATION		29.00	0.20	0.30	0.16	8.25%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-21. GLOBAL ASSESSMENT OF FUNCTIONING

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	126	42.17	42.37	0.19	0.46%
1	Brockton	32	31.19	22.89	-8.30	-26.60%
1	Togus	26	47.31	38.99	-8.32	-17.58%
1	West Haven	20	31.25	25.37	-5.88	-18.81%
2	Albany	18	34.50	33.03	-1.47	-4.25%
2	Buffalo	49	35.00	28.25	-6.75	-19.29%
2	Canandaigua	65	33.28	23.47	-9.81	-29.48%
2	Syracuse	40	39.80	41.58	1.78	4.47%
3	Brooklyn	79	39.42	44.65	5.23	13.28%
3	Montrose	84	39.85	35.30	-4.55	-11.41%
3	New Jersey	89	43.39	47.76	4.36	10.05%
4	Coatesville	82	38.01	42.08	4.07	10.70%
4	Pittsburgh	124	36.06	36.10	0.03	0.09%
5	Perry Point	114	39.90	34.09	-5.81	-14.57%
6	Salem	23	47.22	52.98	5.76	12.20%
6	Salisbury	41	41.12	44.12	2.99	7.28%
7	Atlanta	45	46.71	59.47	12.76	27.31%
7	Augusta	73	44.32	48.84	4.53	10.22%
7	Tuskegee	83	50.04	58.64	8.61	17.20%
8	Gainesville	70	42.39	41.95	-0.43	-1.03%
10	Chillicothe	62	40.87	40.47	-0.40	-0.97%
10	Cincinnati	65	42.02	47.44	5.42	12.90%
10	Cleveland	137	34.77	33.34	-1.43	-4.10%
10	Columbus	20	43.75	53.47	9.72	22.21%
10	Dayton	55	50.31	56.26	5.95	11.83%
10	Youngstown	42	50.17	60.06	9.90	19.73%
11	Ann Arbor	48	36.02	31.47	-4.56	-12.65%
11	Battle Creek	83	47.47	51.35	3.88	8.18%
11	Detroit	93	44.19	52.88	8.69	19.67%
12	Chicago West Side	57	36.91	32.80	-4.11	-11.13%
12	Madison	48	45.15	45.01	-0.13	-0.29%
12	Milwaukee	26	44.50	46.20	1.70	3.82%
12	North Chicago	126	34.44	25.17	-9.28	-26.94%
16	Gulf Coast	38	46.24	53.64	7.41	16.02%
16	Houston	58	41.05	41.69	0.64	1.56%
16	Little Rock	38	26.13	15.86	-10.27	-39.31%
17	Dallas	77	39.97	38.41	-1.56	-3.91%
17	Waco	69	41.36	37.78	-3.58	-8.66%
19	Denver	75	37.47	39.63	2.16	5.77%
19	Fort Harrison	19	46.05	47.69	1.64	3.56%
19	Grand Junction	33	36.15	34.13	-2.02	-5.60%
19	Salt Lake City	60	34.10	29.13	-4.97	-14.57%
19	Southern Colorado	120	42.27	44.97	2.70	6.39%
20	American Lake	50	39.28	30.98	-8.30	-21.14%
20	Boise	38	41.05	34.72	-6.33	-15.42%
20	Portland	42	31.02	32.87	1.84	5.94%
20	Seattle	38	38.18	38.40	0.22	0.57%
21	Palo Alto	31	38.65	37.31	-1.34	-3.46%
21	San Francisco	42	35.81	45.46	9.65	26.94%
22	Greater Los Angeles	45	47.64	45.63	-2.01	-4.23%
23	Knoxville	100	34.69	30.43	-4.26	-12.29%
23	Minneapolis	72	35.71	28.89	-6.81	-19.08%
ALL SITES		3190	39.97	39.19	-0.49	-1.22%
SITE AVERAGE		61.35	40.12	40.20	0.08	0.58%
SITE STD DEVIATION		31.18	5.50	10.14	5.79	15.05%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-22. INSTRUMENTAL ACTIVITIES OF DAILY LIVING

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	118	47.36	50.63	3.27	6.92%
1	Brockton	23	37.15	38.38	1.23	3.31%
1	Togus	25	43.87	46.06	2.19	5.00%
1	West Haven	15	42.41	49.59	7.18	16.93%
2	Albany	16	46.84	51.05	4.21	9.00%
2	Buffalo	43	42.43	41.75	-0.69	-1.62%
2	Canandaigua	37	42.89	43.87	0.98	2.29%
2	Syracuse	39	43.70	43.06	-0.65	-1.48%
3	Brooklyn	73	43.91	44.69	0.78	1.78%
3	Montrose	35	31.18	26.77	-4.41	-14.15%
3	New Jersey	63	40.92	39.21	-1.71	-4.17%
4	Coatesville	73	41.02	41.08	0.06	0.15%
4	Pittsburgh	120	45.31	44.35	-0.96	-2.12%
5	Perry Point	67	39.39	41.42	2.03	5.15%
6	Salem	15	47.73	49.45	1.71	3.59%
6	Salisbury	34	43.47	45.22	1.75	4.02%
7	Atlanta	40	42.89	49.37	6.48	15.12%
7	Augusta	49	42.81	46.53	3.72	8.69%
7	Tuskegee	82	38.19	34.40	-3.79	-9.92%
8	Gainesville	58	41.67	40.83	-0.84	-2.01%
10	Chillicothe	31	48.26	51.90	3.64	7.54%
10	Cincinnati	64	45.84	50.25	4.41	9.61%
10	Cleveland	110	43.30	41.67	-1.63	-3.77%
10	Columbus	20	47.00	47.25	0.25	0.54%
10	Dayton	54	51.53	56.36	4.83	9.37%
10	Youngstown	34	45.48	47.10	1.62	3.56%
11	Ann Arbor	39	44.41	49.29	4.88	10.99%
11	Battle Creek	69	39.56	37.58	-1.98	-5.01%
11	Detroit	82	44.80	46.04	1.25	2.78%
12	Chicago West Side	56	41.09	35.43	-5.66	-13.78%
12	Madison	45	47.44	45.98	-1.47	-3.09%
12	Milwaukee	25	43.87	41.82	-2.06	-4.69%
12	North Chicago	82	46.53	50.94	4.41	9.47%
16	Gulf Coast	38	44.25	50.91	6.67	15.07%
16	Houston	58	40.84	40.20	-0.63	-1.55%
16	Little Rock	30	37.52	36.03	-1.49	-3.97%
17	Dallas	74	45.00	43.14	-1.86	-4.14%
17	Waco	61	47.43	49.76	2.34	4.92%
19	Denver	68	44.59	47.41	2.82	6.32%
19	Fort Harrison	19	46.79	47.03	0.25	0.52%
19	Grand Junction	32	43.83	46.00	2.17	4.94%
19	Salt Lake City	57	45.99	48.17	2.18	4.73%
19	Southern Colorado	72	45.71	46.84	1.13	2.47%
20	American Lake	44	44.18	47.19	3.02	6.83%
20	Boise	37	46.51	45.22	-1.29	-2.77%
20	Portland	35	36.65	37.13	0.48	1.30%
20	Seattle	37	40.02	39.60	-0.42	-1.05%
21	Palo Alto	30	31.70	25.23	-6.47	-20.42%
21	San Francisco	36	41.63	42.86	1.23	2.95%
22	Greater Los Angeles	40	42.53	44.40	1.87	4.39%
23	Knoxville	89	44.92	47.89	2.96	6.60%
23	Minneapolis	55	45.04	47.04	2.00	4.44%
ALL SITES		2648	43.50	44.23	0.84	1.93%
SITE AVERAGE		50.92	43.26	44.26	1.00	1.95%
SITE STD DEVIATION		25.36	3.86	5.97	2.92	7.17%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven ot baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-23. QUALITY OF LIFE

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	115	24.26	27.35	3.09	12.72%
1	Brockton	27	28.03	32.15	4.12	14.71%
1	Togus	25	26.43	30.55	4.12	15.57%
1	West Haven	20	24.57	29.65	5.08	20.66%
2	Albany	16	24.24	29.95	5.71	23.56%
2	Buffalo	41	25.44	27.72	2.28	8.96%
2	Canandaigua	60	26.67	29.80	3.13	11.75%
2	Syracuse	39	22.60	24.28	1.68	7.42%
3	Brooklyn	77	25.02	26.25	1.23	4.90%
3	Montrose	79	24.81	25.49	0.68	2.72%
3	New Jersey	84	25.00	26.28	1.28	5.13%
4	Coatesville	77	25.82	28.46	2.64	10.23%
4	Pittsburgh	114	27.21	28.96	1.75	6.42%
5	Perry Point	99	27.84	31.25	3.41	12.26%
6	Salem	23	24.94	27.58	2.64	10.57%
6	Salisbury	38	27.33	31.10	3.77	13.81%
7	Atlanta	41	26.05	26.12	0.06	0.25%
7	Augusta	70	27.38	31.14	3.76	13.74%
7	Tuskegee	82	27.05	28.27	1.22	4.50%
8	Gainesville	69	26.00	28.72	2.72	10.46%
10	Chillicothe	62	25.90	29.50	3.59	13.87%
10	Cincinnati	59	25.71	27.87	2.16	8.41%
10	Cleveland	111	26.57	29.57	3.01	11.32%
10	Columbus	19	25.05	23.73	-1.33	-5.29%
10	Dayton	54	26.23	29.64	3.41	12.99%
10	Youngstown	36	27.20	31.18	3.98	14.62%
11	Ann Arbor	43	25.33	30.09	4.76	18.80%
11	Battle Creek	79	26.75	27.91	1.17	4.36%
11	Detroit	86	26.69	29.93	3.24	12.14%
12	Chicago West Side	54	26.14	26.40	0.26	1.01%
12	Madison	46	26.66	28.60	1.95	7.30%
12	Milwaukee	23	28.17	30.01	1.84	6.52%
12	North Chicago	124	25.21	27.78	2.57	10.18%
16	Gulf Coast	33	25.27	29.18	3.91	15.48%
16	Houston	53	24.18	26.67	2.49	10.28%
16	Little Rock	35	25.23	27.78	2.54	10.08%
17	Dallas	76	25.57	27.75	2.18	8.51%
17	Waco	67	24.70	27.33	2.64	10.68%
19	Denver	69	26.82	29.00	2.18	8.13%
19	Fort Harrison	12	28.30	29.45	1.15	4.06%
19	Grand Junction	30	25.05	27.91	2.87	11.45%
19	Salt Lake City	54	24.84	25.74	0.90	3.62%
19	Southern Colorado	103	27.40	30.07	2.66	9.71%
20	American Lake	50	24.97	29.14	4.17	16.69%
20	Boise	36	27.32	30.00	2.68	9.81%
20	Portland	31	25.66	29.73	4.07	15.86%
20	Seattle	37	23.28	24.76	1.48	6.37%
21	Palo Alto	28	24.99	23.29	-1.70	-6.79%
21	San Francisco	36	25.03	26.65	1.62	6.46%
22	Greater Los Angeles	44	23.22	23.78	0.55	2.39%
23	Knoxville	91	26.58	30.54	3.96	14.89%
23	Minneapolis	70	26.17	27.44	1.26	4.83%
ALL SITES		2947	25.91	28.50	2.48	9.57%
SITE AVERAGE		56.67	25.82	28.26	2.43	9.41%
SITE STD DEVIATION		28.59	1.29	2.11	1.49	5.83%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-23a. HOUSING INDEPENDENCE

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	125	2.56	3.03	0.47	18.31%
1	Brockton	32	2.36	2.74	0.37	15.84%
1	Togus	26	2.86	3.36	0.50	17.63%
1	West Haven	19	2.23	2.79	0.56	25.19%
2	Albany	18	3.15	3.67	0.52	16.40%
2	Buffalo	49	3.47	4.17	0.71	20.43%
2	Canandaigua	64	2.93	3.26	0.33	11.26%
2	Syracuse	40	3.27	4.00	0.73	22.35%
3	Brooklyn	79	3.68	4.35	0.68	18.41%
3	Montrose	84	2.02	2.25	0.22	11.08%
3	New Jersey	89	2.92	3.32	0.40	13.74%
4	Coatesville	77	2.68	3.10	0.42	15.59%
4	Pittsburgh	114	3.19	3.90	0.71	22.21%
5	Perry Point	108	2.19	2.27	0.08	3.65%
6	Salem	23	2.97	3.38	0.41	13.86%
6	Salisbury	40	2.30	2.57	0.27	11.84%
7	Atlanta	45	3.29	3.55	0.26	7.85%
7	Augusta	73	2.20	2.60	0.40	18.05%
7	Tuskegee	82	3.69	4.29	0.60	16.13%
8	Gainesville	70	3.17	3.56	0.39	12.37%
10	Chillicothe	62	1.91	2.27	0.36	18.97%
10	Cincinnati	65	3.13	3.43	0.30	9.73%
10	Cleveland	136	3.05	3.42	0.37	12.23%
10	Columbus	19	3.47	3.71	0.24	6.90%
10	Dayton	53	3.32	3.91	0.60	17.93%
10	Youngstown	42	3.40	3.89	0.49	14.54%
11	Ann Arbor	48	3.19	3.74	0.55	17.23%
11	Battle Creek	82	2.81	2.84	0.03	1.01%
11	Detroit	93	2.80	3.33	0.52	18.67%
12	Chicago West Side	57	3.12	3.49	0.36	11.64%
12	Madison	48	2.75	3.26	0.51	18.45%
12	Milwaukee	26	3.58	4.00	0.41	11.52%
12	North Chicago	124	2.49	2.29	-0.20	-7.91%
16	Gulf Coast	38	3.02	3.37	0.35	11.49%
16	Houston	58	3.20	3.59	0.39	12.28%
16	Little Rock	38	2.73	2.66	-0.07	-2.52%
17	Dallas	76	3.18	3.78	0.60	18.97%
17	Waco	69	3.14	3.44	0.30	9.49%
19	Denver	75	2.83	3.16	0.33	11.50%
19	Fort Harrison	19	3.81	4.39	0.58	15.25%
19	Grand Junction	33	3.34	3.94	0.60	17.99%
19	Salt Lake City	60	3.25	3.89	0.65	19.93%
19	Southern Colorado	120	3.30	3.78	0.48	14.49%
20	American Lake	47	2.90	3.37	0.47	16.38%
20	Boise	37	3.36	3.62	0.26	7.79%
20	Portland	42	3.36	3.85	0.49	14.66%
20	Seattle	39	3.13	3.46	0.33	10.40%
21	Palo Alto	30	2.20	2.04	-0.16	-7.26%
21	San Francisco	42	2.88	3.41	0.53	18.43%
22	Greater Los Angeles	43	2.97	2.96	-0.01	-0.33%
23	Knoxville	99	2.88	3.37	0.49	17.15%
23	Minneapolis	71	3.26	3.64	0.38	11.56%
ALL SITES		3148	2.94	3.29	0.38	12.99%
SITE AVERAGE		60.54	2.98	3.37	0.40	13.09%
SITE STD DEVIATION		30.46	0.44	0.57	0.21	6.96%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-24. VA MENTAL HEALTH SERVICE SATISFACTION

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	119	9.16	10.17	1.01	10.99%
1	Brockton	25	8.60	10.18	1.58	18.41%
1	Togus	23	8.39	9.28	0.89	10.57%
1	West Haven	16	8.44	10.78	2.34	27.71%
2	Albany	17	10.53	11.63	1.10	10.42%
2	Buffalo	40	10.70	11.82	1.12	10.45%
2	Canandaigua	56	9.93	11.01	1.08	10.86%
2	Syracuse	39	9.08	10.26	1.19	13.06%
3	Brooklyn	61	8.34	9.55	1.20	14.40%
3	Montrose	72	8.54	9.43	0.89	10.36%
3	New Jersey	84	8.85	9.85	1.01	11.40%
4	Coatesville	74	8.30	9.15	0.85	10.27%
4	Pittsburgh	106	9.30	9.98	0.67	7.24%
5	Perry Point	89	9.35	9.98	0.63	6.76%
6	Salem	23	8.65	10.73	2.08	24.03%
6	Salisbury	35	8.83	10.09	1.27	14.34%
7	Atlanta	41	8.80	9.96	1.15	13.11%
7	Augusta	70	8.76	9.67	0.91	10.44%
7	Tuskegee	80	9.46	10.76	1.29	13.66%
8	Gainesville	63	8.16	9.63	1.47	18.00%
10	Chillicothe	61	7.49	8.73	1.23	16.46%
10	Cincinnati	59	10.61	11.84	1.23	11.63%
10	Cleveland	108	9.64	11.01	1.38	14.28%
10	Columbus	20	9.50	9.03	-0.47	-4.90%
10	Dayton	54	10.20	10.48	0.28	2.73%
10	Youngstown	40	10.08	11.51	1.44	14.29%
11	Ann Arbor	39	8.18	9.85	1.68	20.48%
11	Battle Creek	73	8.08	8.17	0.09	1.06%
11	Detroit	81	10.09	11.24	1.16	11.46%
12	Chicago West Side	57	9.39	9.46	0.07	0.78%
12	Madison	45	9.31	9.75	0.43	4.66%
12	Milwaukee	26	10.46	11.16	0.70	6.72%
12	North Chicago	113	9.08	10.09	1.01	11.10%
16	Gulf Coast	37	9.30	11.16	1.86	20.04%
16	Houston	51	10.35	12.05	1.69	16.35%
16	Little Rock	38	9.58	10.49	0.91	9.52%
17	Dallas	74	8.99	10.49	1.51	16.77%
17	Waco	67	8.64	9.07	0.43	4.93%
19	Denver	72	8.56	9.70	1.14	13.33%
19	Fort Harrison	19	8.47	10.31	1.84	21.72%
19	Grand Junction	30	11.13	12.60	1.46	13.15%
19	Salt Lake City	56	9.43	10.28	0.86	9.08%
19	Southern Colorado	101	10.55	11.65	1.09	10.35%
20	American Lake	42	8.45	9.53	1.08	12.73%
20	Boise	37	9.05	10.58	1.52	16.83%
20	Portland	31	9.29	9.85	0.56	6.04%
20	Seattle	35	8.86	10.64	1.79	20.18%
21	Palo Alto	28	9.57	8.80	-0.77	-8.01%
21	San Francisco	37	9.35	10.88	1.53	16.33%
22	Greater Los Angeles	38	8.34	9.07	0.73	8.75%
23	Knoxville	95	9.49	10.53	1.03	10.86%
23	Minneapolis	66	8.18	9.43	1.25	15.26%
ALL SITES		2863	9.18	10.13	1.04	11.32%
SITE AVERAGE		55.06	9.19	10.26	1.07	11.76%
SITE STD DEVIATION		26.99	0.81	0.94	0.58	6.55%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-25. SATISFACTION WITH VA MHICM SERVICE

Pre-Entry vs. Follow-up

VISN	SITE	1 Pre-Entry N	2 Pre-Entry Mean	3 Follow-up Mean (2 + 4)	4 Change at Follow-up	5 Percent Change (4 / 2)
1	Bedford	121	2.93	3.59	0.67	22.81%
1	Brockton	27	3.15	3.69	0.55	17.35%
1	Togus	26	3.00	3.88	0.88	29.34%
1	West Haven	18	2.44	3.23	0.79	32.16%
2	Albany	18	2.72	3.58	0.85	31.39%
2	Buffalo	40	3.38	3.88	0.50	14.92%
2	Canandaigua	61	3.25	3.79	0.55	16.83%
2	Syracuse	40	3.05	3.69	0.64	20.87%
3	Brooklyn	63	2.59	3.16	0.58	22.32%
3	Montrose	67	3.06	3.32	0.26	8.45%
3	New Jersey	85	3.04	3.65	0.62	20.32%
4	Coatesville	80	3.06	3.72	0.66	21.52%
4	Pittsburgh	106	3.17	3.63	0.46	14.52%
5	Perry Point	88	3.17	3.91	0.74	23.42%
6	Salem	23	2.96	3.93	0.97	32.95%
6	Salisbury	37	3.32	4.00	0.68	20.39%
7	Atlanta	41	2.90	3.32	0.42	14.50%
7	Augusta	68	3.37	3.90	0.53	15.81%
7	Tuskegee	81	3.32	4.06	0.74	22.30%
8	Gainesville	62	2.85	3.61	0.76	26.51%
10	Chillicothe	61	2.80	3.53	0.73	26.05%
10	Cincinnati	59	3.47	4.08	0.60	17.32%
10	Cleveland	119	3.22	4.02	0.81	25.05%
10	Columbus	20	2.80	3.51	0.71	25.31%
10	Dayton	55	3.45	4.20	0.75	21.70%
10	Youngstown	40	3.60	4.28	0.68	18.79%
11	Ann Arbor	41	2.76	3.41	0.65	23.57%
11	Battle Creek	75	3.05	3.24	0.18	6.02%
11	Detroit	86	3.05	3.58	0.53	17.48%
12	Chicago West Side	55	3.51	4.01	0.50	14.24%
12	Madison	45	3.27	3.39	0.13	3.90%
12	Milwaukee	25	3.76	4.34	0.58	15.36%
12	North Chicago	120	3.11	3.65	0.55	17.57%
16	Gulf Coast	38	2.47	3.47	1.00	40.35%
16	Houston	58	3.24	3.89	0.65	20.05%
16	Little Rock	38	2.92	3.34	0.42	14.51%
17	Dallas	70	3.24	3.87	0.63	19.40%
17	Waco	64	3.14	3.78	0.64	20.27%
19	Denver	69	2.94	3.65	0.71	23.99%
19	Fort Harrison	18	2.72	3.59	0.87	31.82%
19	Grand Junction	32	3.50	4.19	0.69	19.73%
19	Salt Lake City	57	3.16	3.81	0.66	20.79%
19	Southern Colorado	112	3.38	4.07	0.69	20.52%
20	American Lake	45	2.87	3.52	0.65	22.73%
20	Boise	38	3.29	4.15	0.86	26.05%
20	Portland	35	2.71	2.94	0.22	8.19%
20	Seattle	36	3.19	3.74	0.54	17.03%
21	Palo Alto	31	2.58	2.46	-0.12	-4.73%
21	San Francisco	36	3.22	3.89	0.67	20.81%
22	Greater Los Angeles	39	2.87	3.22	0.34	11.99%
23	Knoxville	96	2.82	3.56	0.73	25.99%
23	Minneapolis	70	2.87	3.53	0.66	22.84%
ALL SITES		2935	3.09	3.69	0.60	19.54%
SITE AVERAGE		56.44	3.07	3.68	0.61	20.06%
SITE STD DEVIATION		27.94	0.29	0.35	0.21	7.69%

Change values are least squares means derived from analysis of covariance adjusted for site, time, baseline value, and eleven other baseline covariates

Shaded values represent significant t-test differences, in the undesired direction, between LS means for the indicated site and the median site on this variable.

Bold/Underlined values represent positive outliers.

Source: Client Interviews

TABLE 2-26. MHICM UNIT COSTS(Based on FY 2002 Expenditures)

VISN	SITE	FY 02 TOTAL				FY 02		ADJUSTED	TOTAL	COST PER
		EXPENDIT.	VETS	COST PER VETERAN	FY 02 P/S EXPEND.	FTE	PER FTE	PER VET/YR	VISITS PER SITE/YR	
1	BEDFORD	\$804,858	134	\$6,006	\$789,260	11.78	\$67,000	149.64	20052	\$40
1	BROCKTON	\$270,424	68	\$3,977	\$265,142	3.68	\$72,049	75.54	5137	\$53
1	TOGUS	\$292,631	26	\$11,255	\$283,083	3.25	\$87,102	76.39	1986	\$147
1	WEST HAVEN	\$409,904	54	\$7,591	\$383,668	5.33	\$71,983	74.96	4048	\$101
2	ALBANY	\$294,794	48	\$6,142	\$293,813	4.50	\$65,292	95.53	4585	\$64
2	BUFFALO	\$274,897	72	\$3,818	\$265,136	5.30	\$50,026	48.46	3489	\$79
2	CANANDAIGUA	\$603,096	122	\$4,943	\$575,716	9.50	\$60,602	84.39	10296	\$59
2	SYRACUSE	\$226,602	53	\$4,276	\$226,502	3.75	\$60,401	40.13	2127	\$107
3	BROOKLYN	\$396,963	79	\$5,025	\$383,146	5.00	\$76,629	26.37	2084	\$191
3	MONTROSE	\$668,069	121	\$5,521	\$650,069	8.50	\$76,479	50.75	6141	\$109
3	NEW JERSEY	\$586,504	91	\$6,445	\$562,527	7.70	\$73,055	50.34	4581	\$128
4	COATESVILLE	\$278,848	83	\$3,360	\$273,974	6.20	\$44,189	37.09	3079	\$91
4	PITTSBURGH	\$672,199	126	\$5,335	\$667,283	8.10	\$82,381	45.79	5769	\$117
5	PERRY POINT	\$445,923	114	\$3,912	\$426,045	7.10	\$60,006	84.85	9673	\$46
6	SALEM	\$240,016	35	\$6,858	\$240,016	4.55	\$52,751	63.63	2227	\$108
6	SALISBURY	\$272,625	46	\$5,927	\$258,525	4.70	\$55,005	36.72	1689	\$161
7	ATLANTA	\$285,408	66	\$4,324	\$273,124	6.20	\$44,052	86.49	5709	\$50
7	AUGUSTA	\$363,668	73	\$4,982	\$346,575	4.50	\$77,017	77.39	5649	\$64
7	TUSKEGEE	\$295,447	83	\$3,560	\$280,455	4.00	\$70,114	44.46	3690	\$80
8	GAINESVILLE	\$411,220	70	\$5,875	\$399,762	5.20	\$76,877	71.35	4995	\$82
10	CHILLICOTHE	\$376,471	62	\$6,072	\$360,465	5.60	\$64,369	60.41	3745	\$101
10	CINCINNATI	\$263,691	66	\$3,995	\$247,890	2.40	\$103,288	46.79	3088	\$85
10	CLEVELAND	\$752,043	144	\$5,223	\$718,295	15.00	\$47,886	89.58	12900	\$58
10*	COLUMBUS	\$179,038	22	\$8,138	\$113,461	2.66	\$42,655	38.90	856	\$209
10	DAYTON	\$294,793	55	\$5,360	\$263,166	4.50	\$58,481	50.28	2766	\$107
10	YOUNGSTOWN	\$327,917	43	\$7,626	\$316,301	4.00	\$79,075	69.38	2983	\$110
11*	ANN ARBOR	\$345,836	49	\$7,058	\$302,013	5.20	\$58,079	82.79	4057	\$85
11	BATTLE CREEK	\$404,577	86	\$4,704	\$390,616	6.20	\$63,003	77.59	6673	\$61
11	DETROIT	\$342,230	93	\$3,680	\$336,230	7.43	\$45,253	32.55	3027	\$113
12	CHICAGO WEST SIDE	\$357,459	73	\$4,897	\$357,459	6.25	\$57,193	69.65	5085	\$70
12*	MADISON	\$333,670	48	\$6,951	\$304,821	4.63	\$65,836	226.13	10854	\$31
12	MILWAUKEE	\$297,304	26	\$11,435	\$277,758	3.95	\$70,318	148.74	3867	\$77
12	NORTH CHICAGO	\$733,202	129	\$5,684	\$710,347	11.50	\$61,769	120.55	15550	\$47
16	GULF COAST	\$265,593	41	\$6,478	\$258,518	4.20	\$61,552	127.57	5231	\$51
16	HOUSTON	\$504,829	59	\$8,556	\$492,805	6.00	\$82,134	56.68	3344	\$151
16	LITTLE ROCK	\$321,626	42	\$7,658	\$299,971	4.00	\$74,993	87.11	3659	\$88
17	DALLAS	\$338,287	82	\$4,125	\$316,055	5.50	\$57,465	84.38	6919	\$49
17	WACO	\$249,466	69	\$3,615	\$230,957	4.00	\$57,739	87.79	6058	\$41
19	DENVER	\$417,892	77	\$5,427	\$416,892	6.00	\$69,482	43.41	3342	\$125
19*	FORT HARRISON	\$103,856	20	\$5,193	\$103,856	1.00	\$103,856	57.96	1159	\$90
19	GRAND JUNCTION	\$384,185	34	\$11,300	\$384,185	3.15	\$121,963	104.47	3552	\$108
19	SALT LAKE CITY	\$382,063	61	\$6,263	\$374,967	3.75	\$99,991	73.27	4469	\$85
19*	SOUTHERN COLORADO	\$580,184	121	\$4,795	\$463,184	6.20	\$74,707	48.09	5819	\$100
20	AMERICAN LAKE	\$346,190	50	\$6,924	\$344,940	3.90	\$88,446	59.51	2975	\$116
20	BOISE	\$381,223	38	\$10,032	\$357,606	4.10	\$87,221	41.37	1572	\$242
20	PORTLAND	\$459,632	74	\$6,211	\$436,946	5.50	\$79,445	78.67	5821	\$79
20	SEATTLE	\$273,475	39	\$7,012	\$272,225	3.50	\$77,779	92.48	3607	\$76
21	PALO ALTO	\$232,537	34	\$6,839	\$227,377	2.90	\$78,406	65.01	2210	\$105
21*	SAN FRANCISCO	\$294,155	43	\$6,841	\$272,339	3.20	\$85,106	67.15	2887	\$102
22	GREATER LOS ANGELES	\$400,820	48	\$8,350	\$383,380	4.00	\$95,845	37.37	1794	\$223
23*	KNOXVILLE	\$566,658	100	\$5,667	\$535,516	8.60	\$62,269	56.04	5604	\$101
23	MINNEAPOLIS	\$390,668	74	\$5,279	\$378,718	5.70	\$66,442	58.28	4312	\$91
ALL SITES		\$19,995,666	3566	\$5,607	\$19,093,080	283.36	\$67,381	71.65	255,516	\$78
SITE AVERAGE		\$384,532.04	68.58	\$6,087	\$367,175	5.45	\$70,482	72.31	4,938	\$97
SITE STD. DEV.		\$149,206.58	31.08	\$1,930	\$145,358	2.48	\$16,406	34.52	3,543	\$45

* Incomplete or unavailable data for this site

Excludes veterans treated by MHICM staff but receiving non-MHICM services

Source: MHICM Local Progress Reports FY 2002

TABLE 2-27. SITE PERFORMANCE ON MHICM CRITICAL MONITORS

VISN	SITE	MONITORING DOMAIN				Total Team Outliers	Total Applicable Monitors	% Outliers/ Applicable Monitors
		STRUCTURE	CLIENT	PROCESS	OUTCOME			
1	BEDFORD	1	0	0	0	1	17	5.9%
1	BROCKTON	5	0	0	0	5	17	29.4%
1	TOGUS	1	0	0	0	1	17	5.9%
1	WEST HAVEN	1	0	0	0	1	17	5.9%
2	ALBANY	2	0	0	1	3	17	17.6%
2	BUFFALO	2	1	3	0	6	17	35.3%
2	CANANDAIGUA	1	0	0	0	1	17	5.9%
2	SYRACUSE	2	0	1	0	3	17	17.6%
3	BROOKLYN	2	0	2	0	4	17	23.5%
3	MONTROSE	0	0	2	1	3	17	17.6%
3	NEW JERSEY	1	0	1	0	2	17	11.8%
4	COATESVILLE	3	0	1	0	4	17	23.5%
4	PITTSBURGH	1	0	1	0	2	17	11.8%
5	PERRY POINT	1	0	1	0	2	17	11.8%
6	SALEM	1	0	1	0	2	17	11.8%
6	SALISBURY	1	0	2	1	4	17	23.5%
7	ATLANTA	0	0	1	0	1	17	5.9%
7	AUGUSTA	4	0	0	0	4	17	23.5%
7	TUSKEGEE	4	1	2	0	7	17	41.2%
8	GAINESVILLE	0	0	1	0	1	17	5.9%
10	CHILLICOTHE	1	0	0	0	1	17	5.9%
10	CINCINNATI	3	0	3	0	6	17	35.3%
10	CLEVELAND	0	0	0	1	1	17	5.9%
10	COLUMBUS	4	0	2	1	7	17	41.2%
10	DAYTON	2	1	1	1	5	17	29.4%
10	YOUNGSTOWN	2	2	0	1	5	17	29.4%
11	ANN ARBOR	1	0	1	0	2	17	11.8%
11	BATTLE CREEK	0	0	1	0	1	17	5.9%
11	DETROIT	0	0	3	0	3	17	17.6%
12	CHICAGO-WEST SIDE	0	0	0	1	1	17	5.9%
12	MADISON	2	0	0	0	2	17	11.8%
12	MILWAUKEE	1	1	1	2	5	17	29.4%
12	NORTH CHICAGO	1	0	0	0	1	17	5.9%
16	GULF COAST	2	0	0	0	2	17	11.8%
16	HOUSTON	0	1	1	0	2	17	11.8%
16	LITTLE ROCK	1	0	0	0	1	17	5.9%
17	DALLAS	2	0	1	0	3	17	17.6%
17	WACO	4	0	0	0	4	17	23.5%
19	DENVER	1	0	1	0	2	17	11.8%
19	FORT HARRISON	3	0	0	2	5	17	29.4%
19	GRAND JUNCTION	2	1	0	0	3	17	17.6%
19	SALT LAKE CITY	2	1	0	0	3	17	17.6%
19	SOUTHERN COLORADO	2	1	0	1	4	17	23.5%
20	AMERICAN LAKE	1	0	0	1	2	17	11.8%
20	BOISE	1	1	1	0	3	17	17.6%
20	PORTLAND	0	0	0	0	0	17	0.0%
20	SEATTLE	2	0	0	1	3	17	17.6%
21	PALO ALTO	2	0	0	2	4	17	23.5%
21	SAN FRANCISCO	2	0	1	0	3	17	17.6%
22	GREATER LOS ANGELES	3	0	1	0	4	17	23.5%
23	KNOXVILLE	0	0	0	0	0	17	0.0%
23	MINNEAPOLIS	1	0	1	1	3	17	17.6%
OUTLIER SITES (N)		42	10	27	15	50	884	16.74%
OUTLIER SITES (%)		80.77%	19.23%	51.92%	28.85%	96.15%		
OUTLIER TOTAL		80	11	39	18	198	884	22.40%
TOTAL MONITORS		260	156	260	208	884		
% OUTLIERS/TOTAL		30.77%	7.05%	15.00%	8.65%	22.40%		
OUTLIER MEAN		1.54	0.21	0.75	0.35	2.85	17	

Total number of critical monitors for which a site is an outlier in the undesired direction.

TABLE 2-28. OUTLIERS FOR TEAM STRUCTURE MONITORS

VISN	SITE	1 FTE UNFILLED MORE THAN 6 MONTHS (Y)	2 UNASSIGNED MEDICAL SUPPORT MD and/or RN (N)		3 CASELOAD SIZE MEAN RATIO OF CLIENTS PER CLINICAL FTEE (LT 7 or GT 15)	4 TEAM SIZE # FULL-TIME CLINICAL STAFF (4.0+ FTEE)	5 TOTAL TEAM STRUCTURE OUTLIERS (1+2+3+4)	6 # APPLICABLE TEAM STRUCTURE MONITORS (1+2+3+4)	7 % OUTLIERS/ APPLICABLE STRUCTURE MONITORS (5/6)
Outlier Direction									
1	Bedford	Y					1	5	20%
1	Brockton	Y	N	N	21.84	2.93	5	5	100%
1	Togus					2.50	1	5	20%
1	West Haven	Y					1	5	20%
2	Albany		N			3.50	2	5	40%
2	Buffalo	Y	N				2	5	40%
2	Canandaigua		N				1	5	20%
2	Syracuse				15.67	3.00	2	5	40%
3	Brooklyn	Y	N				2	5	40%
3	Montrose						0	5	0%
3	New Jersey	Y					1	5	20%
4	Coatesville	Y	N			3.90	3	5	60%
4	Pittsburgh				16.15		1	5	20%
5	Perry Point				15.82		1	5	20%
6	Salem					3.50	1	5	20%
6	Salisbury					3.00	1	5	20%
7	Atlanta						0	5	0%
7	Augusta	Y	N		19.71	3.50	4	5	80%
7	Tuskegee	Y	N		15.71	3.50	4	5	80%
8	Gainesville						0	5	0%
10	Chillicothe	Y					1	5	20%
10	Cincinnati	Y			26.50	2.00	3	5	60%
10	Cleveland						0	5	0%
10	Columbus	Y	N		5.58	2.33	4	5	80%
10	Dayton		N			3.50	2	5	40%
10	Youngstown		N			3.50	2	5	40%
11	Ann Arbor					3.50	1	5	20%
11	Battle Creek						0	5	0%
11	Detroit						0	5	0%
12	Chicago West Side						0	5	0%
12	Madison					3.30	1	5	20%
12	Milwaukee					2.50	1	5	20%
12	North Chicago	Y					1	5	20%
16	Gulf Coast	Y				3.50	2	5	40%
16	Houston						0	5	0%
16	Little Rock					3.00	1	5	20%
17	Dallas		N		15.75		2	5	40%
17	Waco		N	N	16.29	3.50	4	5	80%
19	Denver		N				1	5	20%
19	Fort Harrison		N		18.00	1.00	3	5	60%
19	Grand Junction		N			3.15	2	5	40%
19	Salt Lake City				15.71	3.50	2	5	40%
19	Southern Colorado		N		18.73		2	5	40%
20	American Lake					3.00	1	5	20%
20	Boise					3.00	1	5	20%
20	Portland						0	5	0%
20	Seattle	Y				2.80	2	5	40%
21	Palo Alto		N			2.40	2	5	40%
21	San Francisco				16.00	2.50	2	5	40%
22	Greater Los Angeles	Y	N			3.50	3	5	60%
23	Knoxville						0	5	0%
23	Minneapolis				16.25		1	5	20%
OUTLIER SITES (N)		16	19	2	15	28	42	260	31%
OUTLIER SITES (%)		30.8%	36.5%	3.8%	28.8%	53.8%	80.8%	100%	
OUTLIER TOTAL							80	260	31%

Outlier: Significant difference ($p < 0.05$) from median site in undesired direction, after adjusting for client differences and time in program.

[Team structure monitors are presented in Report Tables 2-5 (p.35) and 2-6(36).]

TABLE 2-29. OUTLIERS FOR CLIENT CHARACTERISTICS MONITORS

VISN	Outlier Direction	1 PERCENT OF CLIENTS WITH GTE 30 DAYS HOSP. YR PRE (LT 50%)	2 PERCENT OF CLIENTS WITH PSYCHOTIC DX AT ENTRY. (LT 50%)	3 MEAN GAF AT ENTRY EXCEEDS 50 (GT 50)	4 Total Client Outliers (1+2+3)	5 # Applicable Client Characteristic Monitors (1+2+3)	6 % Outliers/ Applicable Client Monitors (4/5)
1 Bedford					0	3	0%
1 Brockton					0	3	0%
1 Togus					0	3	0%
1 West Haven					0	3	0%
2 Albany					0	3	0%
2 Buffalo		25.0			1	3	33%
2 Canandaigua					0	3	0%
2 Syracuse					0	3	0%
3 Brooklyn					0	3	0%
3 Montrose					0	3	0%
3 New Jersey					0	3	0%
4 Coatesville					0	3	0%
4 Pittsburgh					0	3	0%
5 Perry Point					0	3	0%
6 Salem					0	3	0%
6 Salisbury					0	3	0%
7 Atlanta					0	3	0%
7 Augusta					0	3	0%
7 Tuskegee				50.0	1	3	33%
8 Gainesville					0	3	0%
10 Chillicothe					0	3	0%
10 Cincinnati					0	3	0%
10 Cleveland					0	3	0%
10 Columbus					0	3	0%
10 Dayton				50.3	1	3	33%
10 Youngstown		28.6		50.2	2	3	67%
11 Ann Arbor					0	3	0%
11 Battle Creek					0	3	0%
11 Detroit					0	3	0%
12 Chicago West Side					0	3	0%
12 Madison					0	3	0%
12 Milwaukee		16.0			1	3	33%
12 North Chicago					0	3	0%
16 Gulf Coast					0	3	0%
16 Houston		43.9			1	3	33%
16 Little Rock					0	3	0%
17 Dallas					0	3	0%
17 Waco					0	3	0%
19 Denver					0	3	0%
19 Fort Harrison					0	3	0%
19 Grand Junction		40.6			1	3	33%
19 Salt Lake City		35.0			1	3	33%
19 Southern Colorado		20.0			1	3	33%
20 American Lake					0	3	0%
20 Boise		34.2			1	3	33%
20 Portland					0	3	0%
20 Seattle					0	3	0%
21 Palo Alto					0	3	0%
21 San Francisco					0	3	0%
22 Greater Los Angeles					0	3	0%
23 Knoxville					0	3	0%
23 Minneapolis					0	3	0%
OUTLIER SITES (N)		8	0	3	10	156	6%
OUTLIER SITES (%)		15.4%	0.0%	5.8%	21.2%	100%	
OUTLIER TOTAL					11	156	7%

[Client monitors are presented in Report Tables 2-10 and 2-11.]

TABLE 2-30. OUTLIERS FOR CLINICAL PROCESS MONITORS

VISN	SITE	1 Tenure % Clients Discharged (≥20%)	2 Intensity % Clients Seen For GTE 1 Hour Per Week (≤1HR/WK)	3 Location % Clients Seen 60% Or More In Community (≤50%)	4 Frequency # Adjusted Face-Face Contacts/WK /Veteran (≤1/WK)	5 Team Provides Psychiatric Rehabilit'n Services (≤25% VETS)	6 Total Clinical Process Outliers (1+2+3+4+5)	7 # Applicable Clinical Process Outliers (1+2+3+4+5)	8 % Outliers/ Applicable Clinical Process Monitors (6/7)
1	Bedford						0	5	0%
1	Brockton						0	5	0%
1	Togus						0	5	0%
1	West Haven						0	5	0%
2	Albany			43.8			0	5	0%
2	Buffalo		43.1		0.93	19.6	3	5	60%
2	Canandaigua						0	5	0%
2	Syracuse				0.77		1	5	20%
3	Brooklyn	32.9%			0.51		2	5	40%
3	Montrose		22.3		0.98		2	5	40%
3	New Jersey				0.97		1	5	20%
4	Coatesville				0.71		1	5	20%
4	Pittsburgh				0.88		1	5	20%
5	Perry Point	20.2%					1	5	20%
6	Salem		48.6				1	5	20%
6	Salisbury	32.6%			0.71		2	5	40%
7	Atlanta		37.9				1	5	20%
7	Augusta						0	5	0%
7	Tuskegee	32.5%			0.85		2	5	40%
8	Gainesville					23.8	1	5	20%
10	Chillicothe						0	5	0%
10	Cincinnati		37.9		0.90	21.2	3	5	60%
10	Cleveland						0	5	0%
10	Columbus	31.8%			0.75		2	5	40%
10	Dayton				0.97		1	5	20%
10	Youngstown						0	5	0%
11	Ann Arbor		38.8				1	5	20%
11	Battle Creek	22.1%					1	5	20%
11	Detroit		44.1		0.63	21.3	3	5	60%
12	Chicago West Side						0	5	0%
12	Madison						0	5	0%
12	Milwaukee					13.6	1	5	20%
12	North Chicago						0	5	0%
16	Gulf Coast						0	5	0%
16	Houston		33.9				1	5	20%
16	Little Rock						0	5	0%
17	Dallas		36.6				1	5	20%
17	Waco						0	5	0%
19	Denver				0.83		1	5	20%
19	Fort Harrison						0	5	0%
19	Grand Junction						0	4	0%
19	Salt Lake City						0	5	0%
19	Southern Colorado				0.92		1	5	20%
20	American Lake						0	5	0%
20	Boise				0.80		1	4	25%
20	Portland						0	5	0%
20	Seattle						0	5	0%
21	Palo Alto						0	4	0%
21	San Francisco		48.8				1	5	20%
22	Greater Los Angeles				0.72		1	5	20%
23	Knoxville						0	5	0%
23	Minneapolis		47.3				1	5	20%
OUTLIER SITES (N)		6	11	1	17	5	28	257	15%
OUTLIER SITES (%)		13%	23%	2%	35%	10%	58%	107%	
OUTLIER TOTAL							39	257	23%

[Clinical process monitors are presented in Report Tables 2-12, 2-13, 2-14, and 2-15.]

TABLE 2-31. OUTLIERS FOR CLIENT OUTCOME MONITORS

VISN	SITE	1 365 Days % Change MH Days (Post-Pre) (Low)	2 Reported Symptoms % Change (BSI) (HIGH)	3 Observed Symptoms % Change (BPRS) (HIGH)	4 Quality of Life % Change (QOL) (LOW)	5 Total Client Outcome Outliers (1+2+3+4)	6 # Applicable Client Outcome Monitors (1+2+3+4)	7 % Outliers/ Applicable Outcome Monitors (5/6)
1	Bedford					0	4	0%
1	Brockton					0	4	0%
1	Togus					0	4	0%
1	West Haven					0	4	0%
2	Albany			5.55%		1	4	25%
2	Buffalo					0	4	0%
2	Canandaigua					0	4	0%
2	Syracuse					0	4	0%
3	Brooklyn					0	4	0%
3	Montrose			12.98%		1	4	25%
3	New Jersey					0	4	0%
4	Coatesville					0	4	0%
4	Pittsburgh					0	4	0%
5	Perry Point					0	4	0%
6	Salem					0	3	0%
6	Salisbury			7.69%		1	4	25%
7	Atlanta					0	4	0%
7	Augusta					0	4	0%
7	Tuskegee					0	4	0%
8	Gainesville					0	4	0%
10	Chillicothe					0	4	0%
10	Cincinnati					0	4	0%
10	Cleveland			2.71%		1	4	25%
10	Columbus				-5.29%	1	4	25%
10	Dayton	-18.9%				1	4	25%
10	Youngstown	0.0%				1	4	25%
11	Ann Arbor					0	4	0%
11	Battle Creek					0	4	0%
11	Detroit					0	4	0%
12	Chicago West Side			13.35%		1	4	25%
12	Madison					0	4	0%
12	Milwaukee	15.9%		20.02%		2	4	50%
12	North Chicago					0	4	0%
16	Gulf Coast					0	3	0%
16	Houston					0	4	0%
16	Little Rock					0	4	0%
17	Dallas					0	4	0%
17	Waco					0	4	0%
19	Denver					0	4	0%
19	Fort Harrison		0.15%	30.29%		2	3	67%
19	Grand Junction					0	4	0%
19	Salt Lake City					0	4	0%
19	Southern Colorado	-35.2%				1	4	25%
20	American Lake			10.93%		1	4	25%
20	Boise					0	4	0%
20	Portland					0	4	0%
20	Seattle			7.50%		1	4	25%
21	Palo Alto			5.32%	-6.79%	2	3	67%
21	San Francisco					0	4	0%
22	Greater Los Angeles					0	4	0%
23	Knoxville					0	4	0%
23	Minneapolis			19.26%		1	4	25%
OUTLIER SITES (N)		4	1	11	2	18	204	9%
OUTLIER SITES (%)		7.7%	1.9%	21.2%	3.8%	34.6%	98.1%	35.3%
OUTLIER TOTAL								

[Client outcome monitors are presented in Report Tables 2-18a, 2-19, 2-20 and 2-23]

Note: There were two negative outliers for the IADL monitor. GAF and Satisfaction outcome monitors were excluded.

TABLE 2-32A. OUTLIERS FOR MINIMUM STANDARDS

VISN	SITE	1 % OF CLIENTS WITH PSYCHOTIC DX AT ENTRY	2 PERCENT OF CLIENTS WITH GTE 30 DAYS HOSP. PRIOR YR	3 # ADJUSTED FACE-FACE CONTACTS/WK/VETERAN	4 CASELOAD SIZE PER CLINICAL FTEE	5 % CLIENTS SEEN 60% OR MORE IN COMMUNITY	6 TEAM PROVIDES PSYCHIATRIC REHABILITAT'N SERVICES
Outlier Direction		(LT 50%)	(LT 50%)	(<1/WK)	7:1 TO 15:1	(<50%)	(<25%)
1	Bedford						
1	Brockton				21.8		
1	Togus						
1	West Haven						
2	Albany					43.8	
2	Buffalo		25.0	0.93			19.6
2	Canandaigua						
2	Syracuse			0.77	15.7		
3	Brooklyn			0.51			
3	Montrose			0.98			
3	New Jersey			0.97			
4	Coatesville			0.71			
4	Pittsburgh			0.88	16.1		
5	Perry Point				15.8		
6	Salem						
6	Salisbury			0.71			
7	Atlanta						
7	Augusta				19.7		
7	Tuskegee			0.85	15.7		
8	Gainesville						23.8
10	Chillicothe						
10	Cincinnati			0.90	26.5		21.2
10	Cleveland						
10	Columbus			0.75	5.6		
10	Dayton			0.97			
10	Youngstown		28.6				
11	Ann Arbor						
11	Battle Creek						
11	Detroit			0.63			21.3
12	Chicago West Side						
12	Madison						
12	Milwaukee		16.0				13.6
12	North Chicago						
16	Gulf Coast						
16	Houston		43.9				
16	Little Rock						
17	Dallas				15.8		
17	Waco				16.3		
19	Denver			0.83			
19	Fort Harrison				18.0		
19	Grand Junction		40.6				
19	Salt Lake City		35.0		15.7		
19	Southern Colorado		20.0	0.92	18.7		
20	American Lake						
20	Boise		34.2	0.80			
20	Portland						
20	Seattle						
21	Palo Alto						
21	San Francisco				16.0		
22	Greater Los Angeles			0.72			
23	Knoxville						
23	Minneapolis				16.3		
<hr/>							
OUTLIER SITES (N)		0	8	17	15	1	5
OUTLIER SITES (%)		0.0%	15.4%	32.7%	28.8%	1.9%	10%
OUTLIER TOTAL							

[Clinical process monitors are presented in Report Tables 2-12, 2-13, 2-14, and 2-15.]

Minimum Program Standards are identified in the MHICM Directive and derived from FY 2001 monitors.

Shaded "outlier" values fall beneath threshold levels for the minimum program standard.

TABLE 2-32B. OUTLIERS FOR MINIMUM STANDARDS

VISN	SITE	7 TENURE % CLIENTS DISCHARGED	8 TEAM SIZE # FULL-TIME CLINICAL STAFF	9 TOTAL MINIMUM PROGRAM STANDARDS OUTLIERS	10 % MINIMUM PROGRAM STANDARDS OUTLIERS	11 % MINIMUM PROGRAM STANDARDS OUTLIERS	12 CHANGE MINIMUM PROGRAM STANDARDS OUTLIERS
Outlier Direction		(>20%)	(4.0+FTEE)	(Col. 1..8)	(Col. 9/8)	FY 2001	FY02-FY01
1	Bedford			0	0.0%	12.5%	-12.5%
1	Brockton		2.93	2	25.0%	25.0%	0.0%
1	Togus		2.50	1	12.5%	25.0%	-12.5%
1	West Haven			0	0.0%	0.0%	0.0%
2	Albany		3.50	2	25.0%	37.5%	-12.5%
2	Buffalo			3	37.5%	50.0%	-12.5%
2	Canandaigua			0	0.0%	0.0%	0.0%
2	Syracuse		3.00	3	37.5%	50.0%	-12.5%
3	Brooklyn	32.9%		2	25.0%	12.5%	12.5%
3	Montrose			1	12.5%	37.5%	-25.0%
3	New Jersey			1	12.5%	25.0%	-12.5%
4	Coatesville		3.90	2	25.0%	37.5%	-12.5%
4	Pittsburgh			2	25.0%	25.0%	0.0%
5	Perry Point	20.2%		2	25.0%	25.0%	0.0%
6	Salem		3.50	1	12.5%		
6	Salisbury	32.6%	3.00	3	37.5%	37.5%	0.0%
7	Atlanta			0	0.0%	25.0%	-25.0%
7	Augusta		3.50	2	25.0%	0.0%	25.0%
7	Tuskegee	32.5%	3.50	4	50.0%	50.0%	0.0%
8	Gainesville			1	12.5%	12.5%	0.0%
10	Chillicothe			0	0.0%	0.0%	0.0%
10	Cincinnati		2.00	4	50.0%	37.5%	12.5%
10	Cleveland			0	0.0%	12.5%	-12.5%
10	Columbus	31.8%	2.33	4	50.0%	37.5%	12.5%
10	Dayton		3.50	2	25.0%	12.5%	12.5%
10	Youngstown		3.50	2	25.0%		
11	Ann Arbor		3.50	1	12.5%	12.5%	0.0%
11	Battle Creek	22.1%		1	12.5%	0.0%	12.5%
11	Detroit			2	25.0%	12.5%	12.5%
12	Chicago West Side			0	0.0%	37.5%	-37.5%
12	Madison		3.30	1	12.5%	12.5%	0.0%
12	Milwaukee		2.50	3	37.5%		
12	North Chicago			0	0.0%	12.5%	-12.5%
16	Gulf Coast		3.50	1	12.5%		
16	Houston			1	12.5%	12.5%	0.0%
16	Little Rock		3.00	1	12.5%	12.5%	0.0%
17	Dallas			1	12.5%	25.0%	-12.5%
17	Waco		3.50	2	25.0%		
19	Denver			1	12.5%	12.5%	0.0%
19	Fort Harrison		1.00	2	25.0%		
19	Grand Junction		3.15	2	25.0%	50.0%	-25.0%
19	Salt Lake City		3.50	3	37.5%	37.5%	0.0%
19	Southern Colorado			3	37.5%	50.0%	-12.5%
20	American Lake		3.00	1	12.5%	0.0%	12.5%
20	Boise		3.00	3	37.5%	12.5%	25.0%
20	Portland			0	0.0%	0.0%	0.0%
20	Seattle		2.80	1	12.5%	12.5%	0.0%
21	Palo Alto		2.40	1	12.5%		
21	San Francisco		2.50	2	25.0%	25.0%	0.0%
22	Greater Los Angeles		3.50	2	25.0%	37.5%	-12.5%
23	Knoxville			0	0.0%	12.5%	-12.5%
23	Minneapolis			1	12.5%	25.0%	-12.5%
OUTLIER SITES (N)		6	28	42	19%	22%	-3%
OUTLIER SITES (%)		12%	54%	81%			
OUTLIER TOTAL				80			

Table 2-33. SITE OUTLIER REVIEW SUMMARY

VISN	SITE	Site # of Outliers 2002 Total #	Reason A	Reason B	Reason C	Reason D	Reason E	Sum of Responses Reason A-E Total
			Legitimate	Local Policies	Implementation	Implementation	Implementation	
			differences not conflict with national goals # of A's	may conflict with national goals # of B's	problems: Corrective action taken # of C's	problems: Corrective action planned # of D's	problems: No corrective action planned # of E's	
1	BEDFORD	1	0	0	1	0	0	1
1	BROCKTON	5	1	0	3	0	1	5
1	TOGUS	1	0	0	0	1	0	1
1	WEST HAVEN	1	0	1	0	0	0	1
2	ALBANY	3	2	0	0	1	0	3
2	BUFFALO	6	1	0	0	5	0	6
2	CANANDAIGUA	1	0	0	0	0	1	1
2	SYRACUSE	3	0	0	1	1	1	3
3	BROOKLYN	4	1	0	2	0	1	4
3	MONTROSE	3	0	0	2	1	0	3
3	NEW JERSEY	2	1	0	0	1	0	2
4	COATESVILLE	4	0	0	4	0	0	4
4	PITTSBURGH	2	1	0	1	0	0	2
5	PERRY POINT	2	0	0	0	2	1	3
6	SALEM	2	0	0	2	0	0	2
6	SALISBURY	4	0	1	2	0	0	3
7	ATLANTA	1	0	0	1	0	0	1
7	AUGUSTA	4	0	1	0	0	0	1
7	TUSKEGEE	7	1	1	3	1	0	6
8	GAINESVILLE	1	0	0	1	0	0	1
10	CHILLICOTHE	1	0	0	0	0	1	1
10	CINCINNATI	6	1	0	5	0	0	6
10	CLEVELAND	1	1	0	0	0	0	1
10	COLUMBUS	7	1	1	5	0	0	7
10	DAYTON	5	0	0	1	0	0	1
10	YOUNGSTOWN	5	2	0	2	1	0	5
11	ANN ARBOR	2	2	0	0	0	0	2
11	BATTLE CREEK	1	0	1	0	0	0	1
11	DETROIT	3	0	0	2	1	0	3
12	CHICAGO-WEST SIDE	1	0	0	0	1	0	1
12	MADISON	1	1	0	0	0	0	1
12	MILWAUKEE	5	1	2	0	0	2	5
12	NORTH CHICAGO	1	1	0	0	0	0	1
16	GULF COAST	2	0	0	0	0	1	1
16	HOUSTON	2	1	0	1	0	0	2
16	LITTLE ROCK	1	1	0	0	0	0	1
17	DALLAS	3	0	0	3	0	0	3
17	WACO	4	0	0	1	2	0	3
19	DENVER	2	1	0	1	0	0	2
19	FORT HARRISON	5	3	0	1	1	0	5
19	GRAND JUNCTION	3	3	0	0	0	0	3
19	SALT LAKE CITY	3	1	0	2	0	0	3
19	SOUTHERN COLORADO	4	1	2	1	0	0	4
20	AMERICAN LAKE	2	0	0	2	0	0	2
20	BOISE	3	3	0	0	0	0	3
20	PORTLAND +	0	0	0	0	0	0	0
20	SEATTLE	3	1	2	0	0	0	3
21	PALO ALTO	4	1	0	1	2	0	4
21	SAN FRANCISCO	3	0	3	0	0	0	3
22	GREATER LA	4	0	1	1	1	0	3
23	KNOXVILLE +	0	0	0	0	0	0	0
23	MINNEAPOLIS	3	3	0	0	0	0	3
OUTLIER SITES (N)		52	26	11	27	15	8	50
OUTLIER SITES (%)		100.0%	50.0%	21.2%	51.9%	28.8%	15.4%	100.0%
OUTLIER RESPONSES (N)		147	37	16	52	22	9	136
OUTLIER RESPONSES (%)		100%	25.2%	10.9%	35.4%	15.0%	6.1%	92.5%

Source: MHICM Outlier Review, FY 2002

+ No Outliers

Figure 2-1. Travel Distance from MHICM offices to veteran residence.
Percent of veterans with case manager reported follow-up data (N=2,471).

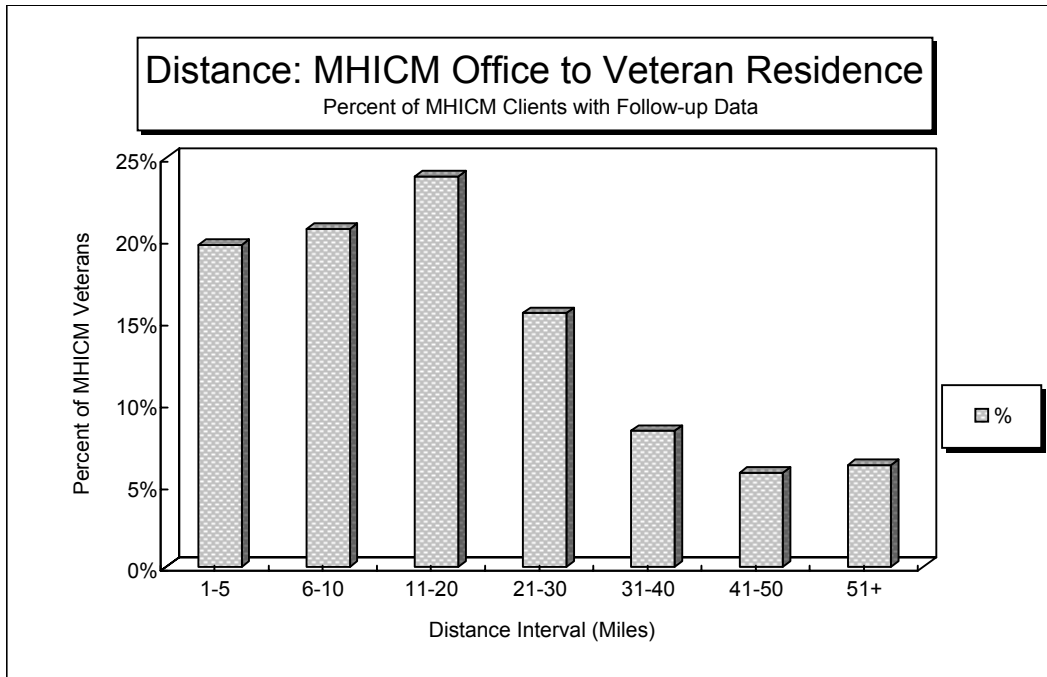


Figure 2-2. Travel Time from MHICM offices to veteran residence.
Percent of veterans with case manager reported follow-up data (N=2,540).

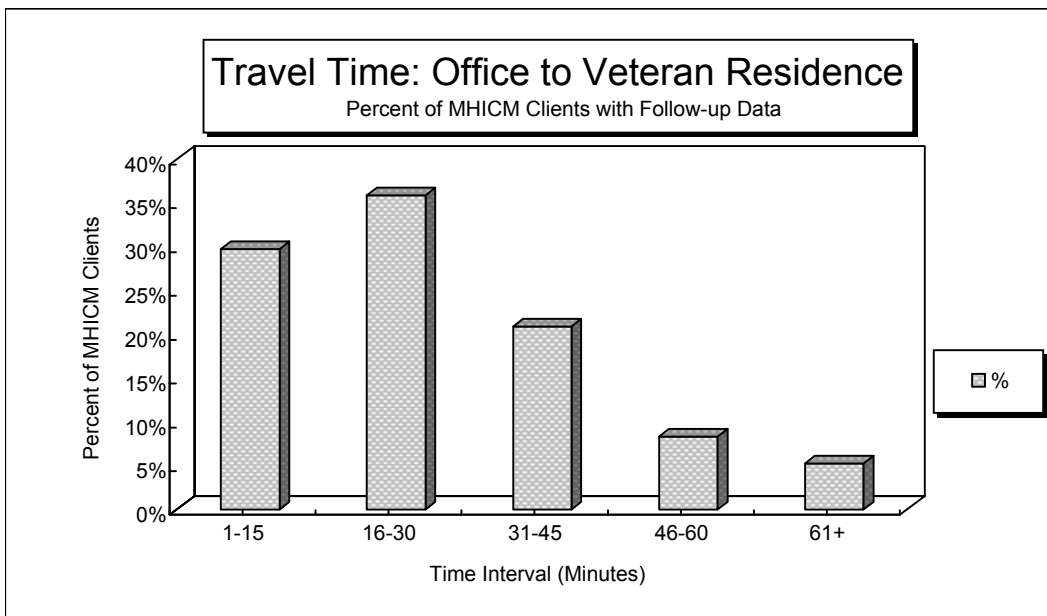


Figure 2-3. MHICM clients reporting expression of violence or criminal justice involvement.
Percent at entry (N=2,713) vs. Follow-up (N=2,174).

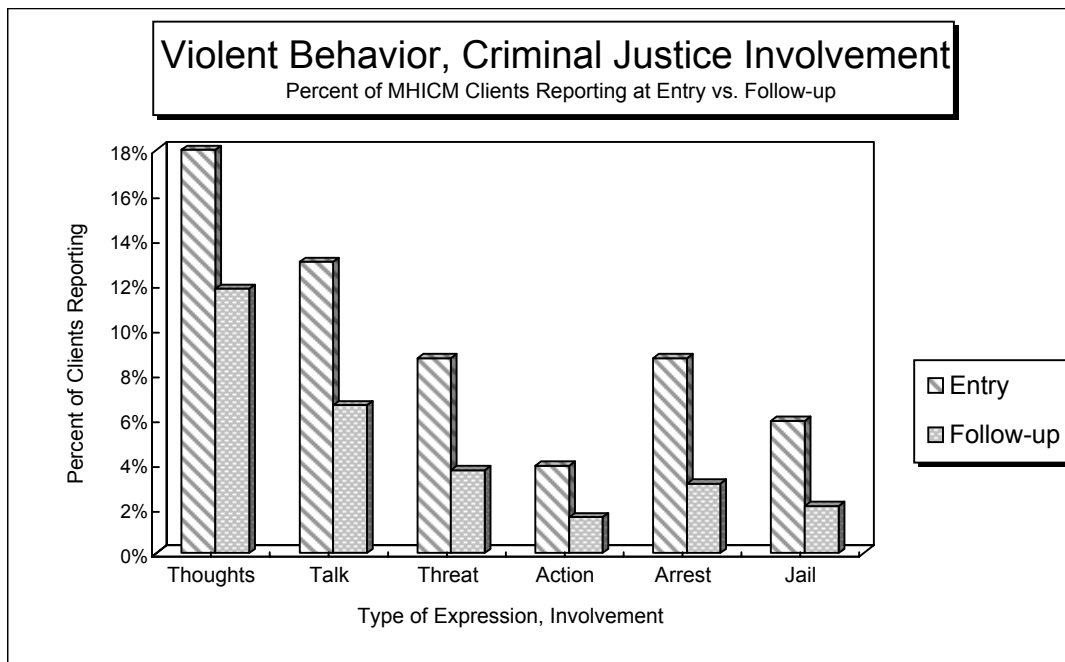


Figure 2-4. MHICM clients reporting expression of suicidality, hospitalization.
Percent at entry (N=3,133) vs. Follow-up (N=2,095).

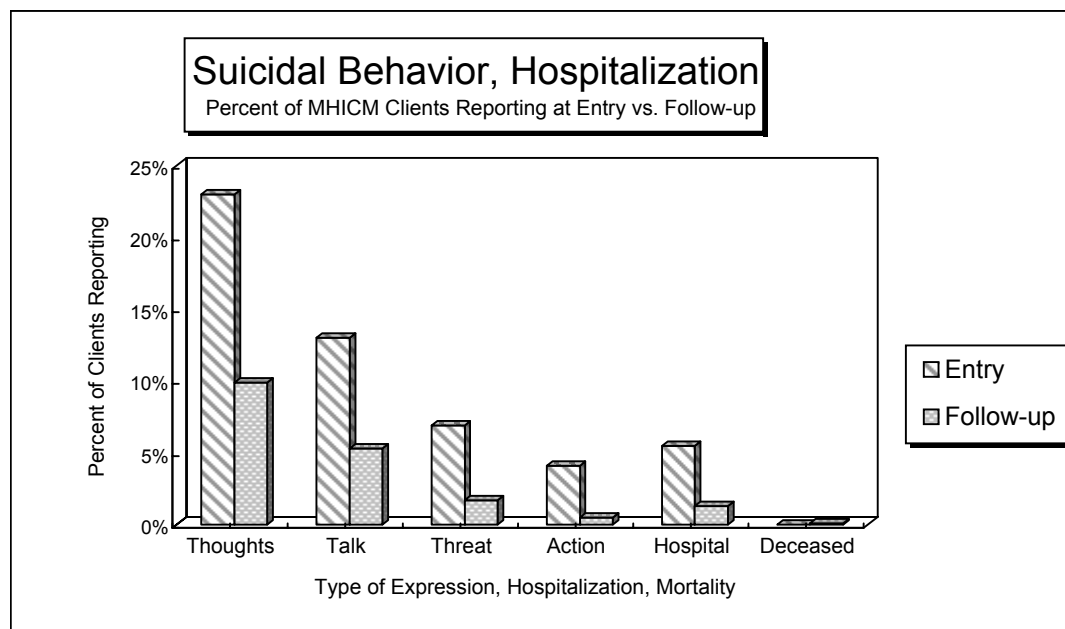


Figure 2-5. MHICM clients reporting living arrangements by level of independence.
Percent at entry (N=3,169) vs. follow-up (N=2,187).

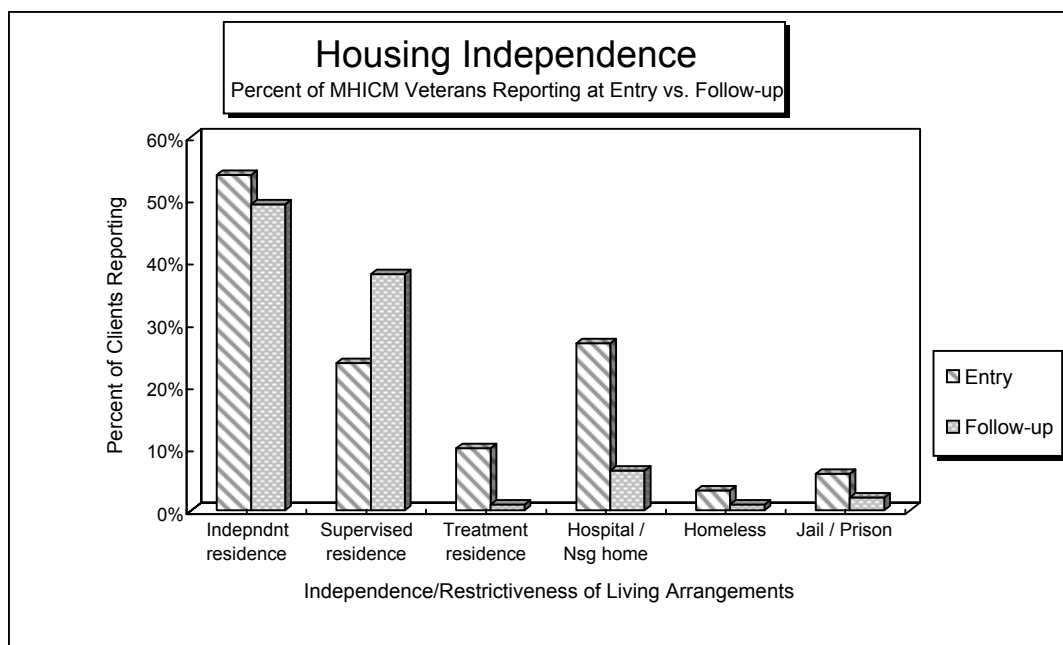
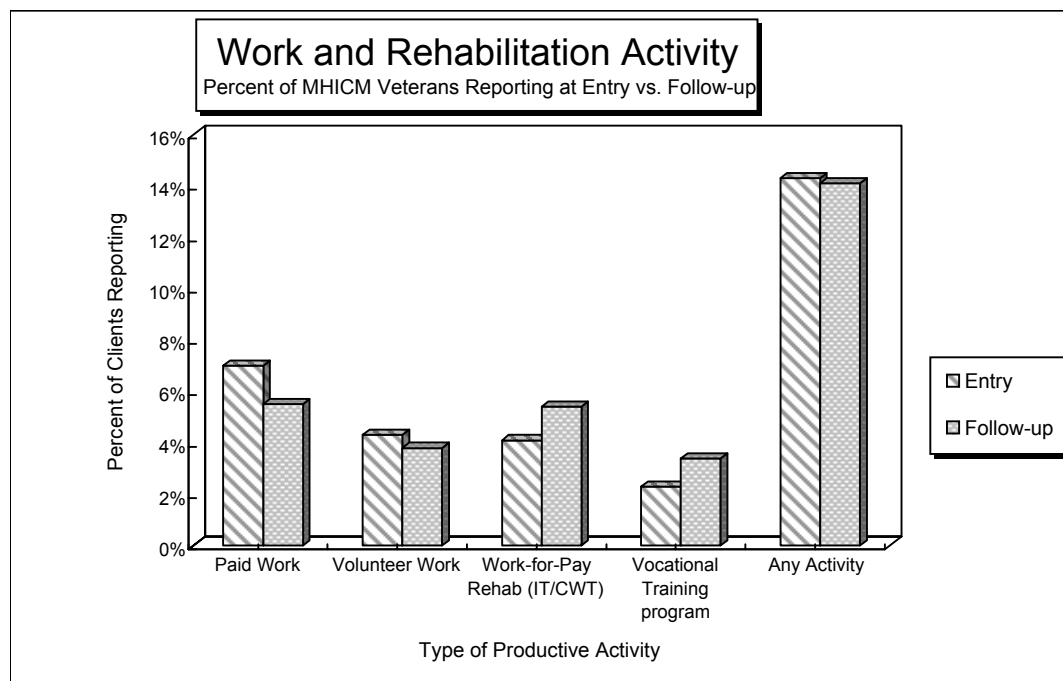


Figure 2-6. MHICM clients reporting participation in productive activity.
Percent at entry (N=3,158) vs. follow-up (N=2,190).



Appendices

- Appendix A. VHA Directive 2000-034 (“MHICM Directive”)
- Appendix B. MHICM Planning Material & Checklists
- Appendix C. Outlier Review Request and Form
- Appendix D. Legend for MHICM Performance Report Tables
- Appendix E. MHICM Case Management Services, FY 2002 (Registered Veterans)
- Appendix F. Non-MHICM Case Management Services, FY 2002
- Appendix G. MHICM Complex VERA Veterans, FY 2002
- Appendix H. MHICM Program Monitor Trends, FY 1997 – 2002.

Appendix A

Department of Veterans Affairs
Veterans Health Administration
Washington, DC 20420

VHA DIRECTIVE 2000-034
October 2, 2000

VHA MENTAL HEALTH INTENSIVE CASE MANAGEMENT (MHICM)

1. PURPOSE: This Veterans Health Administration (VHA) Directive describes a new initiative in mental health intensive case management (MHICM) for seriously mentally ill veterans. **NOTE:** *This initiative takes the place of existing Intensive Psychiatric Community Care (IPCC) programs, Intensive Community Case Management (ICCM) programs, as well as other similar assertive community treatment (ACT) programs within VHA.*

2. BACKGROUND

a. Severe mental illness, primarily psychoses, is a major problem among veterans. Fiscal Year (FY) 1998 Compensation and Pension (C&P) data indicate that 136,362 veterans are service-connected for psychoses of which over 67,700 use VHA services. Over 174,030 veterans with psychoses, overall, used VHA services in FY 1998. The clinical literature suggests that approximately 20 percent of severely mentally ill patients are in need of intensive community case management services in the typical public mental health system. This intensive multidisciplinary team approach to ambulatory management and treatment of patients in, and coordinated with the community and its services, is clearly distinguished from usual case management by: engagement in community settings of highly dysfunctional patients traditionally managed in hospitals; an unusually high staff to patient ratio; multiple visits per week if needed; interventions primarily in the community rather than in office settings; and fixed team responsibility, around the clock, for total patient care over a prolonged period (see subpar. 2e(2)). Multiple studies, including three recent VHA studies, have shown that the intervention is cost effective, particularly where the service is offered to chronically ill, hospitalized patients and where the model is rigorously adhered to with respect to assertiveness of the intervention and maintaining low caseloads (see sub par. 2d). There is compelling evidence for the effectiveness of ACT in patients with psychosis, but its use may also be considered in severe and persistent affective disorder, post-traumatic stress disorder (PTSD), etc., where independent functioning is impaired. A FY 1998 survey by the Committee on Care of Severely Chronically Mentally Ill (SCMI) Veterans revealed that just over 8,000 veterans currently received some form of mental health team case management from VHA, and of those, only 2,000 met ACT Fidelity Measures criteria for intensive case management. Therefore, a gap in these state-of-the-art services is evident, resulting in unnecessary costs and patient morbidity to VHA.

b. On March 25, 1999, in order to obtain a wider range of views in formulating a VHA-wide approach, the Chief Network Officer appointed a SCMI Strategic Implementation Committee composed of four Clinical Managers, a medical center Director, a Mental Health Care Line Director, the National Director of the Northeast Program Evaluation Center (NEPEC), a representative of Vietnam Veterans Association, and a representative of the Mental Health Strategic Healthcare Group.

THIS VHA DIRECTIVE EXPIRES OCTOBER 31, 2005

c. The SCMI Strategic Implementation Committee considered various models of intensive case management within the Mental Health service area, then defined intensive case management for the severely mentally ill in VHA and the accountability expected from this designated program.

d. MHICM is a cost effective intervention given appropriate case selection. This may seem like a paradox given the known resource intensity of the interventions. The efficiency (offset) results from avoidance of other costly interventions such as multiple or lengthy hospitalizations, and extensive ambulatory clinic use, including visits to emergency rooms. Paragraph 3 notes that these programs need to be established from existing funds. To realize the efficiency and accomplish this out of existent resources requires a shift of resources that previously supported the extensive inpatient and outpatient use to underwrite MHICM. It is acknowledged that there will be a need for expedited mental health resource shifts, as well as shifts from other programs that gain economies from implementation of MHICM, including bed closures, where justified, as this more effective alternative of MHICM is implemented.

e. **Definitions**

(1) **Target Population.** MHICM programs are intended to provide necessary treatment and support for veterans who meet all of the following five criteria:

(a) Diagnosis of Severe and Persistent Mental Illness. Diagnosis of severe and persistent mental illness includes, but is not limited to: schizophrenia, bipolar disorder, major affective disorder, or severe post-traumatic stress disorder;

(b) Severe Functional Impairment. Severe functional impairment is such that the veteran is neither currently capable of successful and stable self-maintenance in a community living situation nor able to participate in necessary treatments without intensive support;

(c) Inadequately Served. This means inadequately served by conventional clinic-based outpatient treatment or day treatment;

(d) High Hospital Use. High hospital use as evidenced by over 30 days of psychiatric hospital care during the previous year or three or more episodes of psychiatric hospitalization;

(e) Clinically Appropriate for MHICM Approach. Patients who are more appropriately managed clinically as inpatients need to remain in the inpatient setting; that is, the positive aspects of MHICM should not be used to justify moving patients who would be better served by inpatient care to this ambulatory care model.

(2) **Description of the Program.** MHICM programs are delivered by an integrated, multidisciplinary team and are based on the Substance Abuse Mental Health Services Administration (SAMHSA) ACT standards. There are four core treatment elements:

(a) Very Frequent Contacts between Care Givers and Patients. The treatment process would include two phases:

1. High intensity of care primarily through home and community visits, with low caseloads (seven to fifteen veterans per clinician), allowing rapid attention to crisis and development of community living skills to prevent crisis in this exceptionally vulnerable population.

2. Appropriate transition to lower intensity care. After 1 year of MHICM treatment, patients can be transferred to either standard care or to continuous treatment by the MHICM team at a lower level of intensity (e.g., with caseloads of up to 30 per clinician). Characteristics of the readiness for a lower level of care would include the following: patients are clinically stable, not abusing addictive substances, not relying on extensive inpatient or emergency services, capable of maintaining themselves in a community living situation, and independently participating in necessary treatments.

NOTE: NEPEC will monitor this transition through periodic clinical progress reports and will report both levels of intensity separately.

(b) Flexibility and Community Orientation. Flexibility and community orientation with most services provided in community settings and involving integration with natural support systems whenever possible (e.g., family members, landlords, employer).

(c) Focus on Rehabilitation. Focus on rehabilitation through practical problem solving, crisis resolution, adaptive skill building, and transition to self-care and independent living where possible.

(d) Responsibility. Identification of the team as a "fixed point of clinical responsibility" providing continuity of care for each veteran, wherever the veteran happens to be, for a prolonged period. This is expected to initially be 1 year, but subsequently will be based on a periodic review of continuing need for intensive services.

(3) Data Recording

(a) Attachment A-A. Attachment A-A contains the definitions of the revised Decision Support System (DSS) Identifiers for the MHICM workload (546 and 552) as well as the new code for general (non-intensive) mental health case management (564).

(b) Attachment A-B. Attachment A-B provides Veterans Integrated Service Networks (VISNs) and Department of Veterans Affairs (VA) leadership with population-based data to help facilitate assessment of the need for MHICM teams in each VISN. These data include the number of:

1. Veterans who meet inpatient utilization criteria (30 days of psychiatric hospitalization or three admissions);
2. Outpatients who meet diagnostic criteria for schizophrenia, bipolar, or major affective disorder and had six or more mental health outpatient contacts in FY 1998;
3. Veterans in the Psychiatric Special Care category under the Veterans Equitable Resource Allocation (VERA) system, and
4. Psychiatric patients with lengths of stay over 1 year.

(c) After a period during which new teams will be added to the roster of MHICM teams participating in the national program, NEPEC will present a data summary for each VISN of the ratio of MHICM-treated patients to those potentially eligible as estimated by each of the indicators of population need identified in Appendix B. VISNs may use these data to identify potential service gaps.

3. POLICY: It is VHA policy to support the development of case management approaches sufficient to meet the need where appropriate. Where the need for intensive mental health case management is demonstrated, MHICM programs need to be established out of existing funds (see subpar. 2d). **NOTE:** *NEPEC, which has developed and evaluated this type of program for 10 years, is providing the leadership for training and monitoring of new and established teams.*

4. ACTION

a. Facility Actions. Facilities are to:

- (1) Utilize national DSS identifiers to designate MHICM activity.
- (2) Provide complete nationally-adopted monitoring information for MHICM in a timely manner.

October 2, 2000

(3) Maintain team fidelity to the operating principles as described in the program description (see subpar. 2e(2)) and adhere to evidence-based clinical procedures. Adequate resources are needed to provide a critical mass of staff to comprehensively address the needs of these exceptionally vulnerable patients, even in the face of staff turnover and other absences. **NOTE:** *At least four clinical Full-time Employee Equivalent (FTEE) are needed for each MHICM team. Additional team members may be required in circumstances where the team is isolated from a VA medical center that can provide 24-hour coverage and emergency services. At sites where there are insufficient patients to justify a full team, consideration is to be given to partnering with the community, e.g., existing ACT teams.*

b. **Monitoring and Training Actions.** Because MHICM is resource intensive and the participating veterans are vulnerable, the following monitoring procedures will be implemented under the leadership of NEPEC. **NOTE:** *Forms may be obtained by contacting NEPEC by e-mail at "Robert.Rosenheck@med.VA.gov" or telephone at (203) 937-3850.*

(1) **Standard Intake Data Form (IDF).** Standard IDF will be administered to all new admissions to MHICM. It will document adherence to the eligibility criteria listed above and record baseline data on clinical status, functional impairment, and satisfaction with services. The IDF takes about 30 to 45 minutes to complete per patient.

(2) **Follow-up Data Form (FDF).** Follow-up FDF must be administered 6 months and 1 year after program entry and annually thereafter. It consists of a subset of health status and community adjustment measures from IDF. The FDF takes about 25 to 30 minutes to complete per patient.

(3) **A Clinical Process Form (CPF).** A CPF will document delivery of MHICM service elements and will be completed by each client's primary case manager every 6 months after program entry. The CPF takes about 15 minutes to complete on each patient.

(4) **MHICM Check List and ACT Fidelity Measure.** The MHICM Check List and ACT Fidelity Measure is to be completed by the program director once a year for the entire program. This form takes about 20 minutes to complete.

(5) **VHA Administrative Data.** VHA administrative data will be used to track MHICM process and outcomes using inpatient and outpatient service utilization data available from the Patient Treatment File and the Outpatient Care File in the Austin Data Processing Center.

c. **Mental Health Strategic Healthcare Group (MHSHG) Actions.** The MSHSG will:

(1) Assess, deploy, evaluate, and disseminate quality and cost efficient best practices by utilizing NEPEC, Management Science, and Allocation Resource Center data and expertise.

(2) Oversee effectiveness of MHICM program, monitoring, training, and evaluation by convening a broad based panel of experts to assess clinical and deployment outcomes and to determine future actions.

(a) The expert panel will consist of a NEPEC-based Chair (non-voting), five field members including a Chief Financial Officer (CFO), and three NEPEC and/or VHA Headquarters members. The panel will meet as needed but at least quarterly.

(b) The expert panel will provide a regular biannual summary report of its findings, conclusions and recommendations to the Policy Board.

(c) The expert panel will be responsible for preparing an annual cost and benefit analysis for the Policy Board.

(d) The expert panel will oversee, account, and provide a progress report to the Policy Board at appropriate times, but no less than annually, on the shift of resources to offset the resource needs of the MHICM program.

d. **NEPEC Actions.** NEPEC will:

(1) Provide direct oversight to all MHICM programs to ensure that standards are met through periodic site visits to treatment teams, regular national meetings of team leaders, conference calls, consultation, and national training programs. Programs systematically not meeting standards may be decertified from using the MHICM DSS Identifiers.

(2) Make additional efforts to integrate this data collection into standard VA computerized data systems, to provide sites with spreadsheet summaries of national and site-by-site program results on a regular basis, and to provide clinicians with client-specific output for clinical review.

(3) Be responsible for:

(a) Producing periodic reports on the structure, process, and outcomes of MHICM services for training programs in evaluation and clinical procedures.

(b) Working with the expert panel and its CFO (see subpar. 4c(2)) in the development of an effective costing system, such as activity-based costing, to account the MHICM program.

(c) Facilitating ongoing communication and linkage among programs across the country.

(d) Generating reports on VISN-level population-based needs assessments.

(e) Informing VISN and VA facility-level leadership where standards are problematic and recommending actions to strengthen the MHICM teams.

e. **Network Action.** Each Network will be responsible for:

(1) Addressing population-based needs for MHICM services;

(2) Establishing strategies to provide their severely mentally ill veterans within the described target population (see subpar. 2e(1)) access to MHICM services sufficient to meet the need, and

(3) Supporting recommendations by NEPEC to maintain MHICM standards.

5. REFERENCES: VHA Program Guide 1103.3, June 3, 1999, pages 9-11, 47. **NOTE:** See <http://vawww.mentalhealth.med.va.gov/MHICMRef.htm> on VHA intranet for current clinical references.

6. FOLLOW-UP RESPONSIBILITY: The Chief Consultant, Mental Health Strategic Healthcare Group (116) is responsible for the contents of this Directive.

7. RESCISIONS. None. This VHA Directive expires the last working day of September 2005.

Thomas L. Garthwaite, M.D.
Under Secretary for Health

Attachments

DISTRIBUTION: CO: E-mailed 10/05/00
FLD: VISN, MA, DO, OC, OCRO, and 200 - FAX 10/05/00
EX: Boxes 104, 88, 63, 60, 54, 52, 47, and 44 - FAX 10/05/00

ATTACHMENT A-A: DSS IDENTIFIERS (STOPCODE) FOR FISCAL YEAR 2003

(Abstracted from VHA Directive 2003-090) (Note these are updated from the original Directive appendix)

Name/ Description	Stop code	CDR Account	Effective Date	Definition
TELEPHONE/MHICM	546	2780.00	10/1/99	Records patient consultation or psychiatric care, management, advice, and/or referral provided by telephone contact between patient or patient's next of kin and/or the person(s) with whom the patient has a meaningful relationship, and clinical, professional staff assigned to the special MHICM teams (see DSS Identifier 552). Includes administrative and clinical services. **Provisions of 38 U.S.C. Section 7332 require that records which reveal the identity, prognosis, diagnosis, or treatment of VA patients which relate to drug abuse, alcoholism or alcohol abuse, infection with HIV, or sickle cell anemia, are strictly confidential and may not be released or discussed unless there is written consent from the individual.
MENTAL HEALTH INTENSIVE CASE MANAGEMENT (MHICM)	552	5117.00	10/1/99	<u>Only VA medical centers approved to participate in MHICM (previously IPCC) programs monitored by NEPEC may use this code.</u> This records visits with patients and/or their families or caregivers by MHICM staff at all locations including VA outpatient or MHICM satellite clinics, MHICM storefronts, MHICM offices, or home visits. Includes clinical and administrative services provided to MHICM patients by MHICM staff. Additional stop codes may not be taken for the same workload.
GENERAL TEAM CASE MANAGEMENT	564	2311.00	10/1/99	Records visits with patients and/or their families or caregivers by members of a case management team performing mental health community case management at all locations. Includes administrative and clinical services provided to patients by team members. <u>NOT</u> to be used for visits by MHICM teams (see DSS Identifier 552) or for case management by individuals who use other stop codes.
MENTAL HEALTH INTENSIVE CASE MANAGEMENT (MHICM) GROUP	567	2314.00	10/1/02	<u>Only VA medical centers approved to participate in MHICM (previously IPCC) programs monitored by NEPEC may use this code.</u> This records group visits with patients and/or their families or caregivers by MHICM staff at all locations including VA outpatient or MHICM satellite clinics, MHICM storefronts, MHICM offices, or home visits. Includes clinical and administrative services provided to MHICM patients by MHICM staff. Additional stop codes may not be taken for the same workload.

ATTACHMENT A-B: MHICM TREATMENT POPULATION ESTIMATE FOR PLANNING PURPOSES

Note: This is the original table from the Directive appendix

VISN	Population Statistics			Discharged Psychiatric Inpatients (1)			Seriously Mentally Ill MH Outpatients			Psychiatric Complex VERA Class Patients (CMI)				Long-Term Inpatients (>1 yr LOS)		
				Total Psychiatric Inpatients (1)	Percent Inpatients Eligible for MHICM (2)	Number Inpatients Eligible for MHICM (2)	Total SMI Out-patients (3)	Percent Out Pt's with 6 OP MH Visits (4)	Number Out Pt's with 6 OP MH Visits (4)	Schizophrenia and Dementia	Other Psycho-sis	PTSD	Total	Bed Sections		
	Total Veterans	Eligible for VA Services	SC for MH Problem											Psych.	Med/ Surg	Total
1	1,500,892	358,094	32,435	5,204	30.9%	1,606	14,489	56.7%	8,220	926	324	435	1,685	94	20	114
2	697,421	194,415	12,296	2,355	41.8%	985	6,699	59.1%	3,961	440	171	200	811	18	0	18
3	1,595,593	335,211	29,644	4,716	45.9%	2,166	13,823	60.4%	8,348	1,250	377	505	2,132	196	23	219
4	1,819,870	497,402	27,526	5,047	35.7%	1,801	14,315	53.5%	7,660	930	295	465	1,690	51	9	60
5	857,564	168,218	9,715	3,405	29.3%	998	7,521	57.3%	4,310	502	112	365	979	62	13	75
6	1,251,189	360,885	22,017	4,936	30.1%	1,487	8,955	44.9%	4,023	501	149	319	969	64	1	65
7	1,367,528	399,439	25,458	4,888	29.1%	1,422	13,664	51.0%	6,967	790	175	569	1,534	67	43	110
8	1,634,357	482,839	43,852	5,083	18.3%	931	22,052	43.8%	9,658	440	247	506	1,193	0	0	0
9	1,060,416	367,654	21,666	4,246	21.9%	931	10,626	42.2%	4,481	391	136	169	696	65	0	65
10	1,151,473	318,983	16,861	3,993	32.9%	1,314	9,416	60.4%	5,691	720	196	372	1,288	4	0	4
11	1,651,186	427,356	18,906	4,240	24.2%	1,025	10,279	44.1%	4,528	849	188	284	1,321	193	25	218
12	1,362,314	319,235	15,530	4,372	39.8%	1,739	10,012	57.7%	5,773	606	368	410	1,384	70	0	70
13	707,005	210,110	11,153	2,533	40.9%	1,036	6,890	63.1%	4,346	317	173	190	680	1	0	1
14	516,075	153,798	6,675	1,711	41.2%	705	3,826	45.3%	1,732	194	102	140	436	0	0	0
15	1,071,604	329,293	15,963	4,152	27.3%	1,132	11,016	47.5%	5,229	540	277	342	1,159	7	0	7
16	1,887,301	651,983	39,737	6,995	30.9%	2,163	17,424	45.1%	7,865	877	256	534	1,667	1	0	1
17	1,026,699	321,378	17,795	3,727	37.4%	1,394	9,412	43.0%	4,046	669	314	404	1,387	169	1	170
18	842,132	276,151	15,687	2,833	18.0%	511	9,182	53.9%	4,945	152	118	274	544	0	0	0
19	731,842	215,445	11,835	2,490	34.1%	850	8,137	59.9%	4,876	317	195	337	849	0	0	0
20	1,191,422	342,926	21,245	4,444	32.7%	1,452	10,381	54.9%	5,702	301	227	416	944	0	0	0
21	1,418,772	338,504	19,259	3,292	38.2%	1,257	11,108	60.2%	6,689	518	263	524	1,305	0	0	0
22	1,841,007	418,847	20,114	3,627	29.5%	1,069	17,070	55.5%	9,478	713	463	364	1,540	1	0	1
TOTAL	27,183,662	7,488,166	455,369	88,289	31.7%	27,974	246,297	52.18%	128,528	12,943	5,126	8124	26,193	1,063	135	1,198
AVG	1,235,621	340,371	20,699	4,013	32.3%	1,272	11,195	52.70%	5,842	588	233	369	1,191	48	6	54
STD	397,725	113,743	9,168	1,171	7.4%	425	4,042	6.80%	1,982	268	93	121	420	63	11	70
CV	0.32	0.33	0.44	0.29	0.23	0.33	0.36	12.90%	0.34	0.46	0.40	0.33	0.35	1.30	1.85	1.28

(1) Discharged from Psychiatric bed sections, or other acute bed sections, or Domiciliary care with psychiatric primary diagnosis (excluding addictive disorders).

(2) Either greater than 30 bed days of care per year OR 3 or more admissions.

(3) Diagnosis of schizophrenia, major affective disorder, or bipolar disorder (ICD-9 codes 295.00-296.99).

(4) The official definition of an SMI patient in VA's capacity monitoring requires 6 or more OP visits per year.

Appendix B

MHICM Planning Material and Checklists

August 29, 2003

Director, NEPEC / VA MHICM/IPCC Project Director

MHICM Planning Guidelines

Facility or VISN Representative

1. Thank you for your interest in VA Mental Health Intensive Case Management (MHICM) programs (formerly known as Intensive Psychiatric Community Care or IPCC). In response to many inquiries about MHICM teams, we have assembled this package of materials and guidelines to help VA facility and network level planners evaluate the benefits of implementing an MHICM team. It includes:

A. Descriptive materials: 1) summary of the program's history and scientific foundation; 2) summary of the program's mission, objectives, and monitoring domains; 3) brief bibliography; 4) list of current MHICM teams.

B. Standards and Implementation Checklist: 1) outline of minimum standards and expectations for starting an MHICM team; 2) MHICM implementation checklist.

C. Report and literature: 1) FY 2002 NEPEC MHICM report; 2) 1998 IPCC outcomes paper.

2. Would you like to learn more about Mental Health Intensive Case Management (MHICM)?

To learn more about the history, principles, and outcomes of MHICM, review the descriptive materials and literature and VHA Directive 2000-034, "Mental Health Intensive Case Management", available at <http://vaww.va.gov/publ/direc/health/direct/12000034.htm> and Appendix A of the MHICM Annual Report.

3. Are you interested in starting an MHICM team at your facility or in your VISN?

To learn more about key elements of an MHICM team, review the enclosed minimum standards and the MHICM implementation checklist.

4. Have you considered reconfiguring an existing staff unit into an MHICM team?

How closely do your community services resemble MHICM?

To compare a planned or existing program with MHICM services, review the enclosed minimum standards and complete the enclosed MHICM implementation checklist. Scoring your planned or existing community services team with the checklist will help us know how best to work with you.

**5. Could an MHICM team improve mental health services at your facility?
Could NEPEC training and monitoring enhance the effectiveness or efficiency of an
existing team?**

NEPEC publishes an annual report on MHICM teams with extensive information on program operation, as well as scientific papers in peer-reviewed journals. To learn more about NEPEC monitoring of MHICM teams, look at Chapter 2 in the FY 2002 report for tables on MHICM client characteristics, program structure, service delivery, clinical outcomes, and costs. Appendix A includes VHA Directive 2000-034, which defines MHICM services and monitoring. Appendix D provides a legend for each table. To learn more about MHICM outcomes, review the clinical and cost data from the Archives of General Psychiatry paper on the original IPCC experimental evaluation.

**6. Would you like NEPEC's assistance with starting or reconfiguring a team, training staff, or
monitoring outcomes at your facility?**

To request consultation and training to establish an MHICM team, to reconfigure an existing program to MHICM, or to include an existing community treatment team in NEPEC national monitoring, please send a completed copy of the enclosed MHICM Implementation checklist to:

Robert Rosenheck MD
Northeast Program Evaluation Center (NEPEC)/182
VA Connecticut Healthcare System
950 Campbell Avenue, West Haven, CT 06516
203-937-3850.

7. Thanks again for your interest in MHICM services for veterans with serious mental illness.
We hope the enclosed materials are helpful to you.

Robert Rosenheck, M.D.
Director, NEPEC

Michael Neale, Ph.D.
VA MHICM Project Director

What is Mental Health Intensive Case Management (MHICM)?

VA Mental Health Intensive Case Management (MHICM) teams provide community-based psychiatric and rehabilitation services to veterans with serious mental illness who are among the most frequent and long-term users of VA inpatient mental health resources. MHICM services are characterized by high staff to client ratios, shared caseloads, assertive outreach, frequent contact in community settings, a practical problem-solving approach, and high continuity of care. Interdisciplinary teams assume primary care responsibility and provide individualized care to help veterans: 1) reduce inpatient mental health service use and cost; 2) improve community adjustment and quality of life; and 3) enhance satisfaction with services. All MHICM veterans and staff participate in standardized national monitoring of program resources, client characteristics, service delivery, and outcomes in collaboration with the Northeast Program Evaluation Center (NEPEC). Evaluation and monitoring data have demonstrated the clinical and cost effectiveness of MHICM.

VA Mental health Intensive Case Management services are based on principles and standards of assertive community treatment (ACT) which has been identified as an evidence-based practice for people with serious mental illnesses. VHA Directive 2000-034 defines MHICM services and monitoring within VA. Cost effectiveness studies have shown that MHICM can be effective and efficient in the VA system. MHICM staffing standards (at least 3-4 FTEE) represent a minimum relative to published ACT standards (i.e., 8-15 FTEE). A MHICM team should have sufficient staff to provide the comprehensive, intensive community-based services the standards suggest. Because MHICM teams are less richly staffed than standard ACT teams, there are occasions when clients must be referred for day treatment, medical, substance abuse, or vocational services. On the other hand, location of MHICM teams within integrated VA mental health service systems allows most veterans to receive a range of services with continuous team support and minimal fragmentation.

The seventy-four teams currently providing MHICM services to over 3,800 veterans in 37 states nationwide are listed on the next page.

VHA Mental Health Intensive Case Management (MHICM) Teams (July, 2003)

AL:	Tuscaloosa	MO:	St. Louis
	Tuskegee	MT:	Fort Harrison
AR:	Little Rock	NE:	Omaha
AZ:	Phoenix	NJ:	New Jersey (East Orange/Lyons)
CA:	Greater Los Angeles	NM:	Albuquerque
	Palo Alto	NY:	Albany
	San Diego		Brooklyn
	San Francisco		Buffalo
CO:	Denver		Canandaigua
	Grand Junction		Hudson Valley (Montrose/Castle Pt.)
	Southern Colorado		Northport
CT:	West Haven		Syracuse
DC:	Washington	NC:	Fayetteville
FL:	Gainesville		Salisbury
	Miami	OH:	Chillicothe
	Tampa		Cincinnati
GA:	Atlanta		Cleveland
	Augusta		Columbus
ID:	Boise		Dayton
IL:	Chicago (West Side)		Youngstown
	North Chicago	OR:	Portland
IN:	Northern Indiana (Marion/Ft. Wayne)	PA:	Coatesville
IA:	Central Iowa (Knoxville/Des Moines)		Pittsburgh
	Iowa City	TN:	Mountain Home
KS:	Eastern Kansas (Topeka)	TX:	Dallas
LA:	New Orleans		Houston
ME:	Togus		Waco
MD:	Baltimore	UT:	Salt Lake City
	Perry Point	VA:	Hampton
MA:	Bedford		Salem
	Brockton	WA:	American Lake
MI:	Ann Arbor		Seattle
	Battle Creek		Spokane
	Detroit	WI:	Madison
MN:	Minneapolis		Milwaukee
	St. Cloud		Tomah
MS:	Gulf Coast (Biloxi/Gulfport)	WY:	Sheridan

What are the minimum standards for an effective MHICM team?

Successful implementation of MHICM requires the following explicit administrative commitments, warranted by past experience and the relative resource intensity of MHICM services:

- ' Target veterans with **serious mental illnesses** and **impaired community functioning** (typically psychotic disorders, with or without accompanying substance abuse) who are **high utilizers of VA inpatient, residential, or crisis mental health services** (for whom traditional services have not resulted in stable community adjustment);
- ' Provide a dedicated staff of **at least four clinicians** including at least one nurse as well as psychiatric and office support. Larger teams staff have generally proven to be more effective and enduring.
- ' Promote **team cooperation and morale** to enhance efficiency and continuity (crucial to team success);
- ' Identify a **team leader** whose duties include liaison with VA and community representatives, supervision of MHICM staff, and delivery of clinical services in the community;
- ' Support **frequent client contact** and **delivery of clinical services in the community**, including in vivo assessment, medication delivery, skills training, and rehabilitation services.
- ' Assure **off-hours team access** for guidance of inpatient and emergency clinical staff;
- ' Provide **ancillary resources** for safe and efficient community services, including:
 - ~ fixed, economical **team space**, at or near the medical center/clinic;
 - ~ dedicated **vehicles** for daily community visits by each clinician;
 - ~ dedicated **communication technology** (beepers, cell phones) to assure staff and client safety;
 - ~ electronic **office technology** (computers, copier, answering machine, fax machine) for organizing, charting, and monitoring clinical work;
- ' Establish **integrated links** between the MHICM team and other mental health / rehabilitation services (inpatient, outpatient, and community) to enhance service coordination;
- ' Maintain a **clear line of authority**, with the team leader represented in the mental health service or product line; and
- ' Assure **quality and accountability through monitoring** of program effectiveness and cost.

What is the history and success of MHICM?

Mental Health Intensive Case Management (MHICM) programs represent the adaptation, within VA, of **assertive community treatment (ACT)**, a model developed in the 1970's by Arnold Marx, Leonard Stein, and Mary Ann Test in Madison, Wisconsin (1-6). ACT is one of the most heavily researched psychiatric services for people with serious mental illness, recently recommended as a state of the art intervention by the Schizophrenia Patient Outcomes Research Team (PORT) study (7). The intent of ACT developers was to make the comprehensive services and support of an inpatient unit available to outpatients in the community, integrated within a single team. ACT helps people to reduce psychiatric inpatient hospital use and improve community adjustment, quality of life, and satisfaction with services (8-11). Implementation data further demonstrate that the success of a given ACT team is influenced by team fidelity to the model, staff cohesiveness, and host agency support for outpatient treatment (12-15). In 1998, the National Alliance for the Mentally Ill (NAMI) adopted the Madison ACT model as a central element of its national anti-stigma campaign.

Initially funded as a regional mental health demonstration program in 1987, nine original MHICM teams were compared via experimental design with standard VA aftercare services. Two-year findings revealed that MHICM veterans had significantly fewer hospital days and lower costs overall than veterans receiving standard VA treatment. Clinically, MHICM veterans scored significantly lower in psychiatric symptoms, and higher in functioning and satisfaction with services (16-17). Five-year outcomes showed sustained reductions in hospital use and improvements in psychiatric symptoms, functioning, and personal well-being for MHICM clients (18). Compared to a randomly assigned control group, 454 MHICM veterans averaged 158 fewer hospital days over five years. After accounting for program costs, the nine MHICM programs were responsible for VA cost reductions estimated at \$12.8 million, or \$2.6 million per year. The program was most successful at facilities that adhered to the model and showed performance improvements in other areas as well (15).

With the demonstration's success, 30 new MHICM teams were funded in 1994-95 as part of a national VA initiative that used successful teams as mentors for developing programs. System-wide monitoring data (FY 1997-98) indicate that: 1) MHICM programs serve veterans with severe, long-standing disabilities (77% psychotic diagnosis; 58% hospitalized for more than two years; mean of 135 hospital days in year preceding entry; 47% funds managed by representative payee); 2) MHICM staff provide frequent, continuous services in the community; 3) MHICM veterans show substantial reductions in hospital use (mean 87 days per veteran during the first twelve months of treatment) with commensurate reductions in inpatient costs (\$74.4 million for 1659 veterans treated for twelve months); and 4) MHICM veterans show significant improvements in symptoms, functioning, quality of life, and satisfaction after six months in the program (18-19).

MHICM offers a tested and effective model for community-based treatment and rehabilitation of veterans with serious mental illness who are high users of VA psychiatric inpatient resources. It is consistent with principles underlying VA's recent reorganization that emphasize novel outpatient delivery systems, enhanced accessibility, customer satisfaction, and cost savings. On the basis of MHICM's demonstrated effectiveness, the Mental Health Strategic Healthcare Group (MHSHG) and the VA Under Secretary's Special Committee for Severely Chronically Mentally Ill Veterans (SMI Committee) have encouraged NEPEC to assist VA facilities and networks with MHICM team development by providing training, technical assistance, and monitoring.

Program Objectives and Principles

MHICM services are delivered by integrated, multidisciplinary teams and are based on the Substance Abuse Mental Health Services Administration (SAMHSA) ACT standards. MHICM teams seek to deliver high quality services that:

- provide intensive, flexible community support;
- improve health status (reduce psychiatric symptoms & substance abuse);
- reduce psychiatric inpatient hospital use and dependency;
- improve community adjustment, functioning, and quality of life;
- enhance satisfaction with services; and
- reduce treatment costs.

To accomplish these objectives, MHICM teams adhere to four core treatment elements:

- Intensity of Contact. High intensity of care primarily through home and community visits, with low caseloads (seven to fifteen veterans per clinician), allowing rapid attention to crisis and development of community living skills to prevent crisis in this exceptionally vulnerable population.
- Flexibility and Community Orientation. Flexibility and community orientation with most services provided in community settings and involving integration with natural support systems whenever possible (e.g., family members, landlords, employer).
- Rehabilitation Focus. Focus on rehabilitation through practical problem solving, crisis resolution, adaptive skill building, and transition to self-care and independent living where possible.
- Continuity and Responsibility. Identification of the team as a "fixed point of clinical responsibility" providing continuity of care for each veteran, wherever the veteran happens to be, for at least one year, with subsequent care subject to review of continuing need for intensive services.

VHA Directive 2000-034 establishes procedural guidelines for MHICM teams, operationalized in eight **minimum program standards** that serve to complement the critical performance monitors.

Minimum standard	Threshold value
➤ Percent of veterans with psychotic diagnosis at entry	(50% or more)
➤ Percent of veterans with 30 or more psychiatric inpatient days in year before entry	(50% or more)
➤ Mean adjusted face-to-face contacts per week/veteran	(1.0 or more)
➤ Ratio of veterans to clinical FTEE (mean caseload)	(7:1 to 15:1)
➤ Percent of veterans for whom at least 60% of contacts occur in community setting	(50% or more)
➤ Percent of veterans receiving psychiatric rehabilitation or skills training services	(25% or more)
➤ Percent of veterans discharged from MHICM program	(< 20%)
➤ Number of clinical service providers on the team	(4.0+ FTEE).

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**VA MENTAL HEALTH INTENSIVE CASE MANAGEMENT (MHICM) TEAM
IMPLEMENTATION CHECKLIST**

October 1, 2000

This is a checklist of primary criteria and recommended operational standards for use in evaluating a current or planned implementation of a MHICM team. The checklist is based on current VA criteria for MHICM teams and published CARF standards for Assertive Community Treatment (ACT). All program elements should be in place within the first year of team development. **Please indicate whether each element is in place for an existing team or included in plans for a new team. If "No", briefly identify a reason or obstacle to be addressed. Please record site identification data and general comments or questions below. Thank you.**

Site Identification Data:

Submitting Facility/VISN: _____

Contact Person/Title: _____

Phone: _____ Fax: _____

Address: _____

Alternate Contact Person/Title: _____

Phone: _____ Fax: _____

General Comments, Questions:

VA MENTAL HEALTH INTENSIVE CASE MANAGEMENT (MHICM) TEAM IMPLEMENTATION CHECKLIST

October 1, 2000

PRIMARY PROGRAM CRITERIA:

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
----------------	------------------	-----------------

I. MHICM Target Population

MHICM veterans will meet all four of the following admission criteria:

- | | | |
|--|------------|--|
| 1. diagnosis of severe and persistent mental illness (e.g., schizophrenia, bipolar disorder, major affective disorder, severe PTSD) with or without substance abuse; | Yes__ No__ | |
| 2. a severe functional impairment (i.e., veteran is not currently capable of successful and stable maintenance in a community living situation or participation in necessary treatment without intensive support); | Yes__ No__ | |
| 3. inadequately served by or unable to achieve a stable community adjustment with conventional clinic-based outpatient treatment or day treatment; and | Yes__ No__ | |
| 4. high VA hospital use (i.e. 30 or more days or 3 or more episodes of psychiatric inpatient care in the year preceding MHICM admission). | Yes__ No__ | |

II. MHICM Program Description

- | | | |
|--|------------|--|
| 1. MHICM services will be delivered by an integrated, multi-disciplinary team with a minimum of 4.0 designated clinical FTE who provide services in the community. | Yes__ No__ | |
| 2. MHICM services will be characterized by <u>five core treatment elements</u> , including: | Yes__ No__ | |
| A. high intensity of care (primarily through home & community visits) with low caseloads (7-15 veterans per 1.0 clinical FTE), | Yes__ No__ | |
| rapid attention to crisis and development of community living skills to prevent crisis; | Yes__ No__ | |

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
PRIMARY PROGRAM CRITERIA (continued):		
II. MHICM Program Description (continued):		
B. flexibility & community orientation with most services provided in community settings and involving natural support systems (family, landlord, employer, payee) whenever possible;	Yes__ No__	
C. focus on rehabilitation through practical problem solving, crisis resolution, and adaptive skill building;	Yes__ No__	
D. identification of team as a “fixed point of clinical responsibility” providing care for each veteran, wherever s/he happens to be, for a prolonged period (one year initially, then based on periodic review of continuing need for services); and	Yes__ No__	
E. appropriate transition to standard care or lower intensity treatment by the MHICM team when a veteran is: clinically stable, not abusing addictive substances, not relying on inpatient/ER services, capable of maintaining self in a community living situation, and independently participating in necessary treatment).	Yes__ No__	

III. Accountability

Each MHICM team/clinician will:

- | | |
|--|------------|
| 1. Utilize national DSS identifiers
to designate MHICM workload; | Yes__ No__ |
| 2. Maintain fidelity to MHICM
operating principles and evidence-
based clinical procedures; and | Yes__ No__ |
| 3. Provide complete and timely MHICM
monitoring information, including: | Yes__ No__ |
| A. Standard Intake Data Form (IDF)
completed with all new admissions, | Yes__ No__ |
| B. Follow-Up Data Form (FDF) completed
with each program veteran at 6 months
and annually after entry, | Yes__ No__ |

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
PRIMARY PROGRAM CRITERIA (continued):		
III. Accountability (continued)		
C. Clinical Process Form (CPF) completed by each veteran's primary case manager every 6 months after entry,	Yes__ No__	
D. MHICM Check List and ACT Fidelity measure completed annually by the team leader for the entire program, and	Yes__ No__	
E. FTE/Caseload Report completed monthly by the team leader.	Yes__ No__	

RECOMMENDED OPERATIONAL STANDARDS

IV. Staffing

1. Full-time team leader with master's level degree in mental health field (social work, psychology, nursing, counseling/guidance, rehabilitation) and 2000 hours (2 years) of post-degree treatment of people with serious mental illness. Yes__ No__
2. Minimum of eight hours (.20 FTE) psychiatrist time for every 50 vets. Yes__ No__
3. Minimum of 1.0 FTE RN and clearly designated, accessible nursing backup. Yes__ No__
4. Minimum of three-fourths of clinical staff with at least a bachelor's degree in a mental health field. Yes__ No__
5. Physician/nurses collaborate with other clinical staff to manage a system for prescribing/administering medications. Yes__ No__
6. One or more staff designated to organize daily planning of team activities. Yes__ No__
7. One or more staff with team chart auditing (QA) responsibilities. Yes__ No__

RECOMMENDED OPERATIONAL STANDARDS (Continued)

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
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V. Hours of Coverage and Access

- | | | |
|--|------------|--|
| 1. Team identifies regular hours of service with at least 8 hrs on 5 days/week and evening/weekend hours as appropriate. | Yes__ No__ | |
| 2. Hospital/ER staff have 24-hour, 365-day on-call access to team for crisis, admission, discharge consultation. | Yes__ No__ | |

VI. Communication and Daily Planning

- | | | |
|---|------------|--|
| 1. Daily, M-F team meetings to review client status and organize/assign daily work of team. Rotated leadership. | Yes__ No__ | |
| 2. Integration of individual schedules for client contact (see treatment planning), emerging client needs, and team clinical responsibilities into daily work assignment. | Yes__ No__ | |
| 3. Recording of all client services and encounters, for purposes of auditing, workload credit, and evaluation. | Yes__ No__ | |
| 4. All staff remain accessible during work hours via beeper, pager, cellular phone. | Yes__ No__ | |

VII. Record-keeping

- | | | |
|---|------------|--|
| 1. Charts contain basic sections: identifying data problem list; treatment plans/reviews; progress notes; intake/history; medications/lab results/consults; hospital summaries; clinical assessments/screenings; signed correspondence/releases; & consents/administrative. | Yes__ No__ | |
| 2. Progress notes within local guidelines re: frequency/format, including: assessments of: clinical status, danger to self/others; medication compliance; significant events & status changes; general goals/treatment planning; client/family education; location & frequency of contact; clear goals. | Yes__ No__ | |

RECOMMENDED OPERATIONAL STANDARDS (Continued)

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
VII. Record-keeping (continued)		
3. Initial assessment done within 4 wks of entry & in chart, covering: psychiatric/psychological (with DSM-IV diagnosis), family/other supports, instrumental ADL, vocational, housing, medical/dental, substance abuse.	Yes__ No__	
4. Treatment plan signed by multidisciplinary team in chart within 4 wks of entry and reviewed every 6 mos or as needed.	Yes__ No__	
VIII. Treatment Planning		
1. Weekly meetings for in-depth review of client treatment plans (1-2 clients per hour mtg), including current status & priorities, strengths & needs, short & long-term goals, staff activities & assignments.	Yes__ No__	
2. Multi-disciplinary treatment review schedule determined weeks ahead.	Yes__ No__	
3. Clear leadership of meetings.	Yes__ No__	
4. Problems, goals, plans, & priorities all specific & interpretable, with clear staff roles and activities.	Yes__ No__	
5. Treatment plan tasks and goals copied to client weekly/monthly schedule, for use in daily planning.	Yes__ No__	
6. Treatment plan reviewed with and co-signed by client.	Yes__ No__	
IX. Treatment and Rehabilitation Services		
7. Primary clinician assigned for each client, although team provides multi-disciplinary treatment for each client.	Yes__ No__	
8. Two or more staff with complementary skills / training identified on treatment plan to provide clinical services for each client.	Yes__ No__	

RECOMMENDED OPERATIONAL STANDARDS (Continued)

Element	In Place?	Why Not?
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IX. Treatment and Rehabilitation Services (continued)

- | | | |
|---|------------|--|
| 9. Team provides a broad range of services for assigned clients as clinically indicated: advocacy; coordination; assessment & monitoring of symptoms/stressors/risks/ coping/med compliance/activities/ skill levels; planning; help/skills training for daily tasks (ADLs, shopping); family support/education, and crisis intervention (see treatment plans). | Yes__ No__ | |
| 10. Team initially sees each client for 2-3 substantial contacts per week on average with more frequent direct or phone contact as clinically indicated. | Yes__ No__ | |
| 11. On a typical working day, at least 20% of clients are seen. | Yes__ No__ | |
| 12. Clinicians spend 50-75% of work time providing treatment / rehabilitation services in community settings. | Yes__ No__ | |
| 13. Team serves as fixed point of clinical responsibility with a long-term commitment to care of each client as clinically indicated. Initial expectation is for at least one year. | Yes__ No__ | |
| 14. Team assumes primary clinical responsibility for assigned clients. | Yes__ No__ | |

X. Assessments

- | | | |
|---|------------|--|
| 1. Assessments in charts (see IV-19). | Yes__ No__ | |
| 2. Assessments completed by members of multi-disciplinary team, considering specific training or expertise:
Psychiatric..psychiatrist
Vocational..team professional staff, voc rehab specialist
ADL..team professional staff
Leisure time..team professional staff
Family..team professional staff
Medical..RN/MD | Yes__ No__ | |

RECOMMENDED OPERATIONAL STANDARDS (Continued)

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
XI. Admission / Discharge Criteria		
1. Admission criteria are clearly stated in policy statement and communicated to referring services, including client willingness to participate (i.e., signed releases, consents).	Yes__ No__	
2. Criteria for discharge or transition to lower intensity services are clearly stated in policy statement, including: clinically stable, not abusing addictive substances, not relying on extensive inpatient or emergency services, capable of maintaining self in a community living situation, and independently participating in necessary treatments.	Yes__ No__	
XII. VA, Community Agency, Client Relationships		
1. Meetings are held periodically with leaders of VA & community services to introduce MHICM staff, review policies & procedures, and gain cooperation. E.g., <u>VA</u> : inpatient/outpatient mental health units/services, ER/admitting staff, security, engineering, pharmacy, volunteer service, patient advocate, benefits counselor, VSOs. E.g., <u>Community</u> : ER, psychiatric/detox units, psychosocial clubs, vocational rehabilitation, police, housing authority, residential facilities, crisis intervention.	Yes__ No__	
2. If vocational rehabilitation staff are not on team, liaison exists with voc rehab service/agency to perform assessments, provide training & support.	Yes__ No__	
XIII. National Monitoring Requirements		
1. Clients are included in planning and evaluating team services, as clinically appropriate.	Yes__ No__	

RECOMMENDED OPERATIONAL STANDARDS (Continued)

<u>Element</u>	<u>In Place?</u>	<u>Why Not?</u>
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XIII. National Monitoring Requirements (continued)

2. Team completes a brief annual progress report on program developments, staffing, workload, projected/actual expenditures, including standards and fidelity checklists, due on November 15th each year. Yes__ No__
3. Each team maintains a log of veterans treated, with dates of entry/ transition/ discharge and monitoring data completion Yes__ No__
4. Designated clinician completes standard outcomes monitoring form at intake and 6 and 12 months after entry, and annually thereafter, for each veteran. Yes__ No__
5. Designated clinician or team completes clinical progress report form every 6 months after entry, for each veteran. Yes__ No__

10/00 nepec/msn

Assertive Community Treatment Fidelity Scale

Please complete all items without an "X" for this edited scale.
The scale and contact sheet are on six pages.

Form A (1)

VA Facility Name: _____

1. Five-Digit Facility code _____ (6)

Local name of the Team/Program:

_____ (8)

2. Target population (*list one letter from the categories below*) (9)

A. Seriously mentally ill veterans (non substance abuse)

B. Seriously mentally ill veterans (primarily substance abuse)

X3. Item deleted (leave response areas blank). x_____x (10)

x_____x (12)

X4. Item deleted (leave response areas blank).

x_____x (13)

X5. Items deleted (leave response areas blank).

x_____x (17)

x_____x (21)

x_____x (25)

x_____x (29)

x_____x (33)

x_____x (37)

x_____x (41)

6. Regarding your clients:

x_____x (43)

A. How many veterans are currently in treatment in this program? (46)

B. How many veterans is the program designed to treat when it is operating at full capacity? (49)

X7. Item deleted (leave blank). x\$_____x (56)

X8. Items deleted (leave response areas blank).

x_____x (59)

x_____x (62)

x_____x (65)

9. In what year was the program first implemented? 19 or 20 ____ ____ (67)

Answer the following with the categories directly beneath the question.

10. What is the caseload of your program? (68)

- A. 10 or fewer clients per clinician
- B. 11—20 clients per clinician
- C. 21—34 clients per clinician
- D. 35—49 clients per clinician
- E. 50 or more clients per clinician

11. What percent of clients have contact with more than one staff member in a given week? (69)

- A. 90% or more
- B. 64—89%
- C. 37—63%
- D. 10—36%
- E. 10% or fewer

12. How frequently do the team members meet to plan or review services for each client? (70)

- A. Program meets 4—5 days/week and usually reviews each client, even if only briefly
- B. Program meets 2—3 days/week and usually reviews each client, even if only briefly
- C. Program meets 1 day/week and usually reviews each client, even if only briefly
- D. Program meets 1 day every other week and usually reviews each client, even if only briefly
- E. Program meets 1 day per month or less and usually reviews each client, even if only briefly

13. How much of the time does the program's supervisor /director/coordinator provide services to clients? (71)

- A. Normally, at least 50% of the time
- B. Normally, between 25% and 50% of the time
- C. Routinely as backup, or normally less than 25% of the time
- D. On rare occasions as backup
- E. Supervisor provides no direct services to clients

14. How much staff turnover has the program experienced in the *past two* years? (72)

- A. Less than 20%
- B. 20—39%
- C. 40—59%
- D. 60—80%
- E. More than 80%

15. At what percent of full staffing has the program been operating for the *past twelve* months? (73)

- A. 95% or more
- B. 80—94%
- C. 65—79%
- D. 50—64%
- E. less than 50%

16. Does the program have a defined target population and explicit admission criteria? (74)
- A. The program actively recruits a defined population and all cases comply with explicit admission criteria.
 - B. The program typically actively seeks and screens referrals carefully, but occasionally bows to organizational pressure.
 - C. The program makes an effort to seek and select a defined set of clients, but accepts most referrals.
 - D. The program has a generally defined mission, but the admission process is dominated by organizational convenience.
 - E. The program has no set criteria and takes all types of cases, as determined outside the program.
17. Over the past six months, the highest monthly *intake* rate (that is, how many new clients have been admitted to the program) per month has been:..... (75)
- A. No greater than 6 per month
 - B. 7—9 per month
 - C. 10—12 per month
 - D. 13—15 per month
 - E. 16 or more per month
18. Which of the following five types of treatment services does your program offer? (Check all that apply)
- A. Counseling/psychotherapy (76)
 - B. Housing support (77)
 - C. Substance abuse treatment (78)
 - D. Employment/ vocational rehabilitation (79)
 - E. Rehabilitative services (80)
19. What role does the program have in providing crisis services to its clients?..... (81)
- A. The program provides 24 hour coverage
 - B. The program provides emergency service backup; e.g., program is called, makes a decision about need for direct program involvement.
 - C. The program is available by telephone, predominately in a consulting role.
 - D. Emergency service has program-generated protocol for program clients.
 - E. The program has no responsibility for handling crises after hours.
20. In what percent of hospital admissions of program clients are staff involved in the decision to admit? (82)
- A. 95% or more
 - B. 65—94%
 - C. 35—64%
 - D. 5—34%
 - E. 4% or less

21. In what percent of hospital discharge plans for program clients are program staff involved in developing the plan (planned jointly or in cooperation with the hospital staff)? (83)
- A. 95% or more
 - B. 65—94%
 - C. 35—64%
 - D. 5—34%
 - E. 4% or less
22. What percent of program clients are discharged from the program within one year of program entry? (84)
- A. 6% or fewer
 - B. 6—17%
 - C. 18—37%
 - D. 38—90%
 - E. 91% or more
23. What percent of time with clients is spent in the community (rather than in the office)? (85)
- A. 80% or more
 - B. 60—79%
 - C. 40—59%
 - D. 20—39%
 - E. 19% or less
24. What percent of the team caseload is retained over a twelve month period? (86)
- A. 95% or more
 - B. 80—94%
 - C. 65—79%
 - D. 60—64%
 - E. 59% or less
25. Does the program use street outreach and/or legal mechanisms (such as representative payees, probation/parole, outpatient commitment) to engage clients, as clinically indicated? (87)
- A. The program has a strategy that includes street outreach and legal mechanisms whenever appropriate
 - B. The program has a strategy and uses most of the mechanisms that are available
 - C. Program attempts outreach but uses legal mechanisms only as convenient
 - D. Program makes initial attempts to engage but generally focuses efforts on most motivated clients.
 - E. The program almost never uses street outreach.
26. On average, how much service time does each client receive per week? (88)
- A. 2 hours or more
 - B. 85—119 minutes
 - C. 50—84 minutes
 - D. 15—49 minutes
 - E. 14 minutes or less

27. On average, how many service contacts are made with each client per week? _____ (89)
 A. 4 or more per week
 B. 3 per week
 C. 2 per week
 D. 1 per week
 E. less than 1 per week
28. For clients who have a support network, such as family, landlords, or employers, on average how many staff contacts are made with members of support network per month? _____ (90)
 A. 4 or more per month
 B. 3 per month
 C. 2 per month
 D. 1 per month
 E. less than 1 per month
29. For clients with a substance use disorder, how many minutes per week of substance abuse treatment do they receive from program staff? _____ (91)
 A. 24 minutes per week or more
 B. 17—23 minutes per week
 C. 10—16 minutes per week
 D. 3—9 minutes per week
 E. 2 minutes per week or fewer
30. What percent of clients with a substance use disorder attend group treatment that is provided by program staff? _____ (92)
 A. 50% or more
 B. 35—49%
 C. 20—34%
 D. 5—19%
 E. 4% or fewer
31. For clients with both serious psychiatric illness and a substance use disorder, to what extent does the program employ an integrated “dual disorders” model that is stage-wise, non-confrontational, follows behavioral principles, considers interactions of mental illness and substance abuse, and has gradual expectations of abstinence) ? . _____ (93)
 A. The program is fully based on such DD treatment principles, with treatment provided by program staff
 B. The program primarily uses such a DD model, with some substance abuse treatment provided outside the program
 C. The program uses a mixed model, including both DD and non-DD principles
 D. The program uses primarily a traditional model
 E. The program is fully based on a traditional model
32. What DSS Identifiers (formerly called “stop codes”) are used to document the work of this program?
- A. First DSS identifier (typically 552) _____ (96)
- B. Second DSS identifier (typically 546) _____ (99)
- C. Third DSS identifier (if applicable) _____ (102)

Contact person or Person completing this form:

Name _____

Telephone number (with area code and extension): () _____ x _____

Fax number: () _____

Email (Internet) Address: _____

Address information (street, building, mail stop, city, state, zip):

If you have questions about the survey or items, please contact:

Mike Neale PhD: (203) 932-5711 x 3696

General comments accompanying the survey are welcome.

Please attach the survey to the Annual Report.

Appendix C

Outlier Review Request and Form

June 18, 2003

Director, NEPEC / VA MHICM Project Director

FY 2002 Performance and Minimum Standards Outlier Review

MHICM Program Directors, Clinical and Clerical Staff

1. DRAFT Tables 2-1 to 2-32 for the FY 2002 MHICM National Performance Monitoring Report, have been placed on the NEPEC intranet page, <http://vaww.nepec.mentalhealth.med.va.gov/>, for field review, along with Appendix D which provides a legend for each table and variable. We are also forwarding a copy of the relevant files by Outlook email. As with the FY 2001 Report, MHICM performance and critical monitors are listed in Table 2-1 and data are presented in Adobe Reader (.pdf) format Tables 2-2 to 2-32. You may need to download a recent version of Adobe Acrobat Reader to view or print them. A download link for the software is available on the NEPEC home page (see above). Please consult your local IRM office if necessary.
2. Please review your team's data on all tables and complete and return an outlier review for any shaded value on the monitoring and minimum standards tables. Outlier values are those for which a team's value exceeds the threshold for a critical monitor. Outliers in the *desired* direction, underlined in **bold**, require no response. Outlier values in the *undesired* direction are shaded in Tables 2-2 to 2-25 and outlined in summary tables (2-27 to 2-32) for each of the four monitoring domains (structure, client, service delivery, outcome) and the eight Minimum Program Standards.
3. **Each team is asked to review team values on all tables for accuracy and to identify monitors and/or minimum standards for which the team is an outlier. For each outlier in the undesired direction, please complete an outlier review summary: 1) Identify the monitor; 2) Select a reason for outlier status; and 3) provide a brief explanation or summary of plans to correct the team value. Teams with outlier values in FY 2002 may want to consider adjusting team resources or operation to bring performance within the desired range for FY 2003.**
4. If you have questions or comments about a particular measure or criterion value, please note them on the review form or send them separately. Please refer questions about the tables or outlier review to Mike Neale (203.932.5711x3696) and return the completed review forms to NEPEC by Fax (203.937.4762) or mail (NEPEC/182, VA Connecticut HCS, 950 Campbell Avenue, West Haven, CT 065176), by Thursday, July 10th, 2003.
5. Thank you all for your continued efforts on behalf of veterans with serious mental illness.

Robert Rosenheck, M.D.

Michael Neale, Ph.D.

MHICM Outlier Review, FY 2002

This form asks VA Mental Health Intensive Case Management (MHICM) teams to respond to their identification as an outlier on one or more critical performance monitors or minimum program standards, based on the DRAFT FY 2002 performance tables. **Please refer to the DRAFT tables to identify all critical monitors and standards for which your team's performance fell outside desired values for an MHICM team.** For each outlier in the undesired direction, please select a primary reason and explain the situation and/or plans for remedy below.

Please submit your responses to Mike Neale PhD, VA MHICM Project Director at NEPEC, by July 10th, 2003. You may fax the form to 203.937.4762, mail it (Mike Neale PhD, NEPEC/182, VA Connecticut, 950 Campbell Avenue, West Haven, CT 06516, or respond via Outlook. If you have questions about specific values or the outlier review, please call Mike at 203.932.5711 x3696 or send an Outlook message. Thanks.

If you need additional pages, please make copies of the second page of this form.

MHICM SITE: _____ VA Station Code #: _____

Person completing this report: _____

Phone number: (_____) _____ ext. _____

Monitor/standard: _____

Reason for outlier status: *Please select the most important reason. If more than one applies, indicate in the narrative.*

- _____ a. Legitimate differences in this site's team that do not conflict with national program goals.
- _____ b. Local policies at this site that may conflict with national program goals.
- _____ c. Problems in program implementation for which corrective action has been taken.
- _____ d. Problems in program implementation for which corrective action has since been planned.
- _____ e. Problems in program implementation for which corrective action has not yet been planned.

Explain: _____

Monitor/Standard: _____

Reason for outlier status: *Please select the most important reason. If more than one applies, indicate in the narrative.*

- _____ a. Legitimate differences in this site's team that do not conflict with national program goals.
- _____ b. Local policies at this site that may conflict with national program goals.
- _____ c. Problems in program implementation for which corrective action has been taken.
- _____ d. Problems in program implementation for which corrective action has since been planned.
- _____ e. Problems in program implementation for which corrective action has not yet been planned.

Explain: _____

Monitor/standards: _____

Reason for outlier status: *Please select the most important reason. If more than one applies, indicate in the narrative.*

- _____ a. Legitimate differences in this site's team that do not conflict with national program goals.
- _____ b. Local policies at this site that may conflict with national program goals.
- _____ c. Problems in program implementation for which corrective action has been taken.
- _____ d. Problems in program implementation for which corrective action has since been planned.
- _____ e. Problems in program implementation for which corrective action has not yet been planned.

Explain: _____

Appendix D

Legend for MHICM Summary Report Tables

This appendix details the source and creation of variables included in national NEPEC monitoring of the 52 MHICM teams included in the 6th MHICM National Performance Monitoring Report for FY 2002. Site-by-site values for these variables are described in Chapter 2 of the report and presented in Tables 2-1 to 2-26, Figures 2-1 to 2-6 and Appendices E-H. Text and tables are organized into domains of program structure, client characteristics, service delivery, clinical outcomes, and unit costs. Data for this report represent 3,566 veterans who received services and for whom follow-up data were available completed between October 1, 2001 and September 30, 2002. Monitors for original MHICM teams are based on data for reduced numbers of recently entered clients and may not accurately represent values for their entire client population. For each variable, outliers were identified by tests of significance ($p < 0.05$) between the least square mean of the change score for a given team and the median site score. Outliers in undesired direction are indicated by **shaded** values and in the desired direction by **bold, underlined** values. Outliers are **boxed** in summary Tables 2-27 through 2-32. Team responses to outlier values are reported in Table 2-33. **Note: Fifty-two teams with 10 or more veterans who had Baseline (IDF) and Follow-up (FDF/CPR) data from “30 series” forms were included in analyses for this report.**

Table 2-1: VA MHICM Program Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Monitoring Domain	Area addressed by monitoring variable (Structure/Client/Process/Outcome/Cost).
Program Monitor	Monitoring variable derived from MHICM interviews, ratings, or centralized VA data.
Unit	Unit of measurement for monitoring variable.
Report Table	Number of report table presenting data on a given monitoring variable.
Program Objective	Program objective (1-6) addressed by monitoring variable (see Appendix B).
Critical Monitor	Indicator of critical status for comparison and outlier identification.

Table 2-2: MHICM Programs through FY 2002

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
VISN	Veterans Integrated Service Network number.
Site Name	Name/Location of host facility or healthcare system.
Site Code	Host Facility Station Code, including 5-digit station code numbers for consolidated facilities.
Site Type	GM&S: General Medical and Surgical facility; NP: Former Neuro-Psychiatric facility.
MHICM Startup Year	Year team began accepting veteran clients.

Table 2-3: Allocated Staff and Funds (Original Dollars)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: MSHSG Resource tables
Allocated FTE	Original allocation of positions for MHICM services (excludes local contributions).
Personal Service	Original allocation of recurring Personal Service funds (salary and benefits).
All Other	Original allocation of recurring All Other funds (supplies, leased equipment).
Admin. Support	Original allocation of recurring Administrative Support funds (use at local discretion).
Total Program \$	Original allocation of Total funds.
<u>Row Heading</u>	<u>Computation Description</u>
All Sites	Overall sum or mean across all individuals or MHICM teams included in the analysis.
Site Average	Team mean or average for the 52 site values presented in the table above.
Site S.D.	Standard deviation from the mean for all site values presented in the table above.

Table 2-4: FY 2002 Program Expenditures

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: FY 2002 site-generated progress reports.
FY 02 Filled FTE	FY 2002 reported MHICM filled FTE.
FY 02 P/S Expend.	FY 2002 reported expenditure of MHICM Personal Service funds.
FY 02 AO Expend.	FY 2002 reported expenditure of MHICM All Other funds.
FY 02 Total Expend.	FY 2002 reported Total expenditure of MHICM funds.

Table 2-5: Utilization of Staff Resources

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Total FTE	Source: September, 2002 Monthly FTE/Caseload Report
FY Filled FTE	MHICM allocated FTE ceiling, adjusted to include locally funded positions.
% FTE Utilized	MHICM positions reported filled as of September 30, 2002.
Sept. Clinical FTE	Percent MHICM positions reported filled as of September 30, 2002.
FTE Unfilled GTE 6 mos.	Positions available to provide MHICM case management services as of September 30, 2002. Shaded values are below the MHICM standard of 4.0 Clinical FTEE.
Assigned non-MHICM	Yes = one or more MHICM positions unfilled for 6 or more months. Shaded values had one or more positions unfilled for 6 months or more.
	Yes = one or more MHICM staff detailed to non-MHICM work. Shaded values have one or more staff detailed to non-MHICM work..

Table 2-6: Clinical Staff and Caseload

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Medical Support MD	Source: September, 2002 monthly FTE/Caseload Summary Y = psychiatrist assigned to MHICM team. Shaded values indicate the team does not have an assigned psychiatrist.
Medical support RN	Y = nurse-case manager assigned to MHICM team. Shaded values indicate the team does not have an assigned nurse-case manager.
Clinical FTE	Positions available to provide MHICM case management services.
9/02 Total # Vets	MHICM veterans as of September 30, 2002.
9/02 Caseload / Clin FTE	Average number of veteran clients per clinical FTE. Shaded values indicate the mean caseload is outside MHICM standard range of 7:1 to 15:1.
Target Caseload	<u>Min</u> : minimum caseload ratio of 7 clients per clinical FTE (VHA Directive 2000-034). <u>Max</u> : maximum caseload ratio of 15 clients per clinical FTE (VHA Directive 2000-034).

Table 2-7: Demographic Characteristics of Veterans at Intake

<u>Column/Row Heading</u>	<u>Source/Variable and Computation Description</u>
Overall	Source: Initial Data Form (IDF), Form 34.
GM&S	All sites combined (N=52 teams in FY 2002 are represented in this report.)
NP	General medicine & surgery facilities (N=34 teams).
Gender	Former neuro-psychiatric facilities (N=18 teams).
Age	% MHICM veterans who are male or female (34: Face sheet).
Race	Mean age of MHICM veterans (34: Face).
Marital status	% MHICM veterans from different racial/ethnic backgrounds (34: Face).
Combat exposure	% MHICM veterans with different marital histories (34: Face sheet).
Employment Last 3 yrs	% MHICM veterans reporting exposure to combat (34: #25).
	% MHICM veterans with different employment histories in past 3 years (34: #31).

Table 2-8: Entry Criteria Information

<u>Row Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: IDF 34.
Mn hospital days 1 yr pre	Mean days spent in VA hospital; year before entry (34: #17).
Inpt psych unit referral	% MHICM veterans referred for MHICM treatment directly from inpatient unit (34: #16).
Primary psych diagnosis	% MHICM veterans with a DSM-IV psychiatric diagnosis at entry (34: #21).
GTE 30 days in hospital	% MHICM veterans with 30+ psychiatric hospital days in year before entry (34: #17; PTF). <i>GTE means "Greater than or equal to."</i>
Dual diagnosis at entry	% MHICM veterans with co-morbid substance abuse diagnosis at entry (34: #21).
Diagnosis	% MHICM veterans meeting various diagnostic criteria at entry (34: #21).
Disability/Pension	% MHICM veterans receiving any compensation or disability funds (34: #26-9).
SC Disability	% MHICM veterans with VA service-connected disability (34: #26; Face).
NSC Pension	% MHICM veterans receiving VA non-service connected pension (34: #26; Face).
SSI	% MHICM veterans receiving Social Security Supplemental Income (34: #27).
SSDI	% MHICM veterans receiving Social Security Disability Income (34: #28).
Payee	% MHICM veterans with a designated representative payee for funds (34: #29).

Table 2-9: Receipt of Disability Compensation or Pension Income

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: IDF 34.
VA Compensation %	% MHICM veterans receiving VA service-connected compensation (34: #26).
NSC Pension %	% MHICM veterans receiving non-service-connected pension (34: #26).
SSI %	% MHICM veterans receiving Social Security Supplemental Income (34: #27).
SSDI %	% MHICM veterans receiving Social Security Disability Income (34: #28).
Rep Payee %	% MHICM veterans with a designated representative payee for funds (34: #29).
Any Disability %	% MHICM veterans receiving any compensation/disability pension (34: #26-29).

Table 2-10: Entry Criteria Information by Site

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: IDF 34.
Lifetime Hosp GT 2 yrs	% MHICM vets reporting lifetime psychiatric hospital use GT 2 yrs (34: #190).
Years since 1st Hosp	Mean years since first psychiatric hospitalization (34: #47).
GTE 30days Hosp. yr pre	% MHICM veterans with 30+ VA hospital days; year before entry (34: #17). Shaded values: Less than 50% of veterans have 30+ hospital days prior to entry. Bold values: 100% of veterans have 30+ hospital days in year prior to entry.
Psychotic Dx at Entry	% MHICM veterans with psychotic diagnosis at entry (34: #22), including: schizophrenia, schizo-affective disorder, other psychosis, and bipolar disorder. Shaded values: Less than 50% of veterans with diagnosis of psychosis at entry. Bold values: 100% of veterans have diagnosis of psychosis at entry.
Dual diagnosis	% MHICM veterans with co-morbid substance abuse diagnosis at entry (34: #21).

Table 2-11: Clinical Status at Entry

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Initial Data Form (IDF), Form 34.
Inpatient at Entry	% veterans entering MHICM from inpatient status (34: #16; 24: na).
Low IADL	% MHICM veterans scoring 1 or 2 on one of four Form 34 IADL items (#121,123-125).
BPRS Mean	Mean BPRS Total score (sum 18 items) at entry (34: #265-283). Note: "1" added to each BPRS item to conform with current reporting conventions.
GAF Mean	Average GAF score at entry (34: #284). Shaded values: Mean GAF score at entry is 50 or higher.

Table 2-12: MHICM Program Tenure

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Clinical Progress Report (CPR), Form 39; NEPEC Access files.
Total Vets	# MHICM veterans with FDF between 10/1/01 and 9/30/02 (Access/SAS).
Vets Discharged #	# Follow-up veterans discharged by program as of September 30, 2002 (Access).
Vets Discharged %	% Follow-up veterans discharged as of September 30, 2002 (#DC'd / Total # Vets). Shaded values: More than 20% of team veterans were discharged during the fiscal year.
Mean Days in Program	Average # Days in MHICM per veteran (FDF date minus IDF date).

Table 2-13: Pattern of Service Delivery

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Clinical Progress Report (CPR), Form 39; NEPEC Access files.
Total Vets	# MHICM veterans in FY 2002 (Access/SAS).
Contact Frequency	Face-to-face: % MHICM veterans with weekly or more frequent contact (39: #40). Telephone: % MHICM veterans with weekly or more frequent contact (39: #41).
Intensity	% MHICM veterans with GTE one hour of weekly contact (39: #45). Shaded values: Less than half of clients have weekly or more frequent contact. Bold values: More than 78% of clients have weekly or more frequent contact.
Location	% MHICM veterans with GTE 60% of contacts in the community (39: #37). Shaded values: Less than half of veterans have 60% or more of contact in the community. Bold values: 98-100% of clients have 60% or more of their contact in the community.
All Site v. Site Average	Mean value for all vets combined (N=3,566) v. site scores (N=52) in the table.

Table 2-14: Outpatient Clinic Visits

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: VA Outpatient Clinic (OPC) stops reported b/w 10/1/01 and 9/30/02.
Total Vets seen	# MHICM veterans with a MHICM stop code during FY 2003 (Access/SAS).
Mean contacts/Vet: 12mo.	Total: Avg. sum all MHICM encounters recorded under DSS identifiers 546 & 552 per vet. Telephone: Avg. sum telephone encounters recorded under DSS identifier 546 per vet. Face-Face: Avg. sum face-to-face encounters recorded under DSS identifier 552 per vet.
Amount time in program	Mean proportion of period (10/1/01-9/30/02) veterans spent in MHICM (per site). Used to standardize all veterans and sites at 12 months. of program participation.
Adjusted face-face/vet	Mean face-to-face contacts, divided by the team's "amount of time in program".
Adjusted face-to-face contacts/wk/vet	Mean face-to-face contacts, adjusted for each team's amount of time in program, then divided by 52 weeks to get a contacts per week value. Shaded values: Mean of team contact is less than 1.0 per week per veteran.
	Bold values: Mean of team contact exceeds 1 standard deviation above the mean.

Table 2-15A & B: Therapeutic Services

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Clinical Progress Report (CPR), Form 39.
Follow-up Vets	# MHICM veterans with FDF between October 1, 2001 and September 30, 2002.
Supportive Contact	% veterans receiving supportive contact services from MHICM (39: # 13;).
Active Monitor	% veterans receiving active monitoring services from MHICM (39: #15).
Rehabilitation	% veterans receiving rehabilitation services from MHICM (39: #16). Shaded values: Less than 25% of veterans receive rehabilitation services.
	Bold values: Percent of clients receiving rehabilitation services exceeds 1 standard deviation above the mean.
Psychother Relationship	% veterans receiving psychotherapeutic treatment from MHICM (39: #18).
Social/Rec Activities	% veterans in social/recreational activities organized by MHICM (39: #19).
Crisis Intervent	% veterans receiving crisis intervention services from MHICM (39: #23).
Medicatin Mgmt	% veterans whose medications were managed by MHICM (39: #24).
Medical Screen	% veterans screened for or treated for medical problems by MHICM (39: #25).
Seen for Sub. Abuse	% veterans receiving substance abuse treatment from MHICM (39: #26).
Housing Support	% veterans assisted with locating or managing housing by MHICM (39: #27).
Vocational Support	% veterans assisted with locating or maintaining a job by MHICM (39: #30).

Table 2-16: Client-Rated Therapeutic Alliance

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; Follow-up Data Form (FDF), Form 37.
	MHICM alliance at 6 mos. was compared with pre-entry alliance with primary clinician.
Pre-Entry N	MHICM veterans with IDF entry interview data on this measure.
Pre-Entry Mean	Average score for this measure at entry (34: #219-225).
Follow-up Mean	Average score for this measure at 6 months (37: #179-185), adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates. Shaded values: Adjusted change value is significantly lower ($p < 0.05$) than median site.
	Bold values: Adjusted change value is significantly higher ($P < 0.05$) than median site.
Percent Change	Change at Follow-up divided by Pre-Entry Mean to get adjusted percent change.

Table 2-17: Fidelity to Assertive Community Treatment Model

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Human Resources	DACTS self-report by sites; confirmed with other available data.
Organiz'l Boundaries	Average program score on 7 human resources items.
Services	Average program score on 7 organizational boundaries items.
Sub.Abuse Tx	Average program score on 6 nature of services items.
Total Score	Average program score on 3 substance abuse treatment items.
Avg. Score	Total program score: sum of 23 DACTS items.
	Average program score: mean of 23 DACTS items. Original DACTS contains 26 items.
	Compare VA scores to averages, NOT to totals, for non-VA programs.
	Shaded values exceed 1 standard deviation below the mean site (undesired).
	Bold values exceed 1 standard deviation above the mean site (desired).

Table 2-18: VA Hospital Use: 183 Days Before and After Program Entry

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: PTF through 9/30/02.
Total N FY 02	# MHICM veterans as of 9/30/02.
N 183 Days	# MHICM veterans with 183 or more days in program (entered by 3/31/02).
Pre-Entry MH Days/Vet	Mean mental health hospital days per veteran in 183 days before MHICM entry.
Post-Entry MH Days/Vet	Mean mental health hospital days per veteran in 183 days after MHICM entry.
Change MH Days/Vet	Mean change in mental health hospital days (Post- minus pre-MHICM entry).
	Shaded values exceed 1 standard deviation from mean in direction of fewer days/lower %.
	Bold values exceed 1 standard deviation from mean in direction of more days/higher %.
% Change MH Days/Vet	Mean % change in mental health days (Change MH Days/Pre-IDF MH Days).
Inp't MH Per Diem FY01	Mean national inpatient mental health per diem cost (NMHPPMS): \$866 [hidden col.]
Change IP MH Cost/Vet	183-day Inpatient MH reduction per MHICM veteran (Inp't MH Per Diem x Change MH Days).
	Cost change data are unadjusted for inflation and do not fully represent cost reductions achieved for veterans at original MHICM sites.

Table 2-18a: VA Hospital Use: 365 Days Before and After Program Entry**Table 2-18b: VA Hospital Use: 548 Days Before and After Program Entry****Table 2-18c: VA Hospital Use: 730 Days Before and After Program Entry**

The format for these Tables is identical to that for Table 2-18, with increasing Pre- and Post-Entry time frames: a) 365 days; b) 548 days; and c) 730 days. For each table, data are reported only for veterans with sufficient time in the program to allow that Pre-Post comparison. Program entry is defined by the Initial Data Form (IDF) completion date.

Table 2-19: Brief Psychiatric Rating Scale (Observed symptoms)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; Follow-up Data form (FDF), Form 37.
	Note: "1" added to each BPRS item to conform with current reporting conventions.
Pre-Entry N	MHICM veterans with entry interview data on this measure.
Pre-Entry Mean	Mean BPRS Total score (sum 18 items) at entry (34: #265-283).
Follow-up Mean	Mean BPRS Total score (sum 18 items) at follow-up (37: #225-243), adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change.
	Shaded values: Adjusted change value is significantly higher (p<0.05) than median site.
	Bold values: Adjusted change value is significantly lower (P<0.05) than median site.

Table 2-20: Symptom Severity (Client-reported symptoms)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; FDF 37 Schizophrenia Outcomes Module & Brief Symptom Inventory items (Note: Replication site variables are scaled differently and not included.)
Pre-Entry N	MHICM veterans with entry interview data on this measure.
Pre-Entry Mean	Mean symptom score at entry (34: #51-80).
Follow-up Mean	Mean symptom score at follow-up (37: #30-59), adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change. Shaded values: Adjusted change value is significantly higher ($p<0.05$) than median site. Bold values: Adjusted change value is significantly lower ($P<0.05$) than median site.

Table 2-21: Global Assessment of Functioning (GAF; DSM-IV Axis V)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; FDF 37.
Pre-Entry N	MHICM veterans with entry interview data on this measure.
Pre-Entry Mean	GAF score at entry (34: #284).
Follow-up Mean	Mean GAF score at follow-up (39: #116) adjusted for site, time in program, baseline value, and 11 baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change. Shaded values: Adjusted change value is significantly lower ($p<0.05$) than median site. Bold values: Adjusted change value is significantly higher ($P<0.05$) than median site.

Table 2-22: Instrumental Activities of Daily Living (Schizophrenia Outcomes Module items)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; FDF 37.
Pre-Entry N	MHICM veterans with entry interview data on this measure.
Pre-Entry Mean	Mean IADL score at entry (34: # 114-125).
Follow-up Mean	Mean IADL (37: #77-88) score at follow-up adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change. Shaded values: Adjusted change value is significantly lower ($p<0.05$) than median site. Bold values: Adjusted change value is significantly higher ($P<0.05$) than median site.

Table 2-23: Quality of Life (Lehman QOLI Delighted-Terrible items)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	IDF 34; FDF 37.
Pre-Entry N	MHICM veterans with entry interview data on this measure.
Pre-Entry Mean	Mean QOL scores at entry (34: #23,128,136,147,150,240).
Follow-up Mean	Mean QOL scores (37: #14,91,99,110,113,201) adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Change at Follow-up	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change. Shaded values: Adjusted change value is significantly lower ($p<0.05$) than median site. Bold values: Adjusted change value is significantly higher ($P<0.05$) than median site.

Table 2-23a: Housing Independence Index (NEPEC scale)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Pre-Entry N	IDF 34; FDF 37: Days in each setting were multiplied by weight for restrictiveness.
Pre-Entry Sum	MHICM veterans with entry interview data on this measure.
Follow-up Sum	Sum of weighted HOUI items at entry (34: #138*4, 140*3, 142*2, 144*1, 146*0).
Change at Follow-up	Sum of weighted HOUI items at follow-up (37: #101*4, 103*3, 105*2, 107*1, 109*0) adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change.
	Shaded values: Adjusted change value is significantly lower (p<0.05) than median site.
	Bold values: Adjusted change value is significantly higher (P<0.05) than median site.

Table 2-24: VA Mental Health Services Satisfaction (3 item)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Pre-Entry N	IDF 34; FDF 37.
Pre-Entry Mean	MHICM veterans with entry interview data on VA Mental Health services satisfaction.
Follow-up Mean	Sum VA MH Satisfaction score at entry (34: #232,235,239).
Change at Follow-up	Sum VA MH Satisfaction score at follow-up (37: #193,196,200) adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change.
	Shaded values: Adjusted change value is significantly lower (p<0.05) than median site.
	Bold values: Adjusted change value is significantly higher (P<0.05) than median site.

Table 2-25: Satisfaction with VA MHICM Services (vs. VA Mental Health Services; single items)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
Pre-Entry N	FDF 37.
Pre-Entry Mean	MHICM veterans with entry interview data on VA mental health services satisfaction.
Follow-up Mean	Mean VA MH services satisfaction score at entry (34: #228).
Change at Follow-up	Mean MHICM Satisfaction score at follow-up (37: #190) adjusted for site, time in program, baseline value, and eleven other baseline covariates.
Percent Change	Least squares mean derived from analysis of covariance, including site, time in program, baseline value, and eleven other baseline covariates.
	Change to Follow-up divided by Pre-Entry Mean to get adjusted percent change.
	Shaded values: Adjusted change value is significantly lower (p<0.05) than median site.
	Bold values: Adjusted change value is significantly higher (P<0.05) than median site.

Table 2-26: MHICM Unit Costs (per Veteran, FTE, Visit)

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
FY02 Total Expenditures	Source: FY 2002 Site-generated annual progress reports, OPC stop codes.
Total Vets	FY 2002 reported total expenditure of MHICM funds.
Cost per Veteran	# MHICM veterans receiving MHICM services in FY 2002 (OPC).
FY02 P/S Expenditures	Annual cost per MHICM veteran (FY 02 Total Expenditures divided by Total Vets)
FY02 Filled FTE	FY 2002 reported personal service expenditures.
Cost per FTE	MHICM positions reported filled as of September 30, 2002.
Adj. Total Visits/Vet/Yr	Annual cost per MHICM FTE (FY 02 P/S Expenditures divided by Total FTE)
Total Visits/Site/Yr	Total MHICM stop code visits (per veteran), adjusted for 52 weeks.
Cost per Visit	Adjusted Total Visits/Vet/Yr multiplied by Total Vets to get Total Team Visits for FY 2002.
	Cost per visit (FY 02 Total Expenditures divided by Total Visits per Yr)

Table 2-27: Site Performance on MHICM Critical Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Critical monitor outliers identified on tables 2-1 to 2-24.
Structure	# of 5 critical monitors in tables 2-2 to 2-6 in undesired direction.
Patient	# of 3 critical monitors in tables 2-7 to 2-11 in undesired direction.
Process	# of 5 critical monitors in tables 2-12 to 2-17 in undesired direction.
Outcome	# of 4 critical monitors in tables 2-18 to 2-25 in undesired direction.
Site Total	Total # of 17 critical monitors in tables 2-2 to 2-25 in undesired direction.

Table 2-28: Outliers for Team Structure Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Outliers from Tables 2-5 and 2-6.
FTE Unfilled	Yes = one or more MHICM positions unfilled for 6 or more months (Table 2-5).
Unassigned Medical	N = physician (MD) or nurse-case manager (RN) <u>not</u> assigned to MHICM team (2-6).
Caseload Size	Total # MHICM veterans as of 9/30/02 divided by Clinical FTE as of 9/30/02 (2-6).
Team Size	Clinical FTE as of September 30, 2002 (Monthly FTE/Caseload Report) (2-5).
Total Team Outliers	# Team Structure monitors for which team value is an outlier (range: 0-5).
# Applicable Monitors	# Team Structure monitors that applied to team in FY 2002 (range: 0-5).
% Outliers/Applicable	# team outliers divided by # applicable monitors.

Table 2-29: Outliers for Client Characteristics Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Outliers from Tables 2-10 and 2-11.
% Clients GTE 30 Days	% MHICM veterans with 30+ VA hospital days in year before entry (2-10).
% Clients Psychotic Dx	% MHICM veterans with psychotic diagnosis at entry (2-10).
Mean GAF at Entry	Average GAF score at entry for veterans seen by team (2-11).
Total Team Outliers	# Client Characteristics monitors for which team value is an outlier (range: 0-3).
# Applicable Monitors	# Client Characteristics monitors that applied to team in FY 2002 (range: 0-3).
% Outliers/Applicable	# team outliers divided by # applicable monitors.

Table 2-30: Outliers for Clinical Process Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Outliers from Tables 2-12, 2-13, 2-14 and 2-15.
Tenure	% veterans discharged as of September 30, 2002 (2-12).
Intensity	% veterans with one hour or more of weekly contact (2-13).
Location	% veterans with 60% or more of contacts in the community (2-13).
Frequency # Adjusted	Mean face-to-face visits, adjusted for each team's amount of time in program, then divided by 52 weeks to get a visits per week value (2-14).
Team provides...Rehab	% veterans receiving rehabilitation services from MHICM team (2-15A).
Total Team Outliers	# Clinical Process monitors for which team value is an outlier (range: 0-5).
# Applicable Monitors	# Clinical Process monitors that applied to team in FY 2002 (range: 0-5).
% Outliers/Applicable	# team outliers divided by # applicable monitors.

Table 2-31: Outliers for Client Outcome Monitors

<u>Column Heading</u>	<u>Source/Variable and Computation Description</u>
	Source: Outliers from Tables 2-18a, 2-19, 2-20 and 2-23.
365 Days % Change	Mean % change in mental health days after 365 days (2-18a).
Reported Symptoms %	Change in BSI at Follow-up (2-20).
Observed Symptoms %	Change in BPRS at Follow-up (2-19).
Quality of Life %	Change in QOL at Follow-up (2-23).

Table 2-32A&B: Outliers for Minimum Standards

	Source: Selected Outliers from Tables 2-5, 2-6, 2-10, 2-12, 2-13, 2-14, and 2-15.
% Clients Psychotic Dx	% vets with psychotic diagnosis at entry (<i>Threshold: 50% or more</i>) (2-10).
% Clients GTE 30 Days	% vets with 30+ psychiatric inpatient days in year pre-entry (<i>50% or more</i>)(2-10).
# Adjusted Face-to-face Caseload Size	Mean adjusted face-to-face visits per week per veteran (<i>1.0 or more</i>)(2-14).
% Clients seen 60%... 13).+	Ratio of veterans to clinical FTE (mean caseload as of 9/30/01)(<i>7:1 to 15:1</i>) (2-6).
Team provides...Rehab	% vets for whom 60+% of visits occur in community location (<i>50% or more</i>) (2-13).
Tenure	% vets receiving psychiatric rehabilitation/skills training (<i>25% or more</i>) (2-15).
Team Size	% vets discharged from MHICM program in FY 2002 (<i>< 20%</i>) (2-12).
Total Outliers	# Clinical case managers on team as of 9/30/01 (<i>4.0+ FTEE</i>) (2-5).
% Min Stand Outliers	# of 8 minimum standards for which team value was an outlier (range: 0-8).
% Outliers FY 2001	% of 8 minimum standards for which team value was outlier in FY 2002.
Change % Outliers	% of 8 minimum standards for which team value was outlier in FY 2001.
	Change in team % outliers from FY 2001 to FY 2002.

Table 2-33 Site Outlier Review Summary

	Source: Site completed Outlier Review Forms for indicated outliers.
Site # Outliers	# of critical monitors for which team value was an outlier in undesired direction.
Reason A	# Team responses indicating "Legitimate differences in this site's team that do not conflict with national program goals".
Reason B	# Team responses indicating "Local policies at this site that may conflict with national program goals".
Reason C	# Team responses indicating "Problems in program implementation for which corrective action has been taken".
Reason D	# Team responses indicating "Problems in program implementation for which corrective action has since been planned".
Reason E	# Team responses indicating "Problems in program implementation for which corrective action has not yet been planned".
Sum of Responses	# outliers addressed in Outlier Review.

Appendix E. MHICM Case Management Services, FY 2002 (MHICM Veterans)

	Source: VA Outpatient Clinic File (Austin, TX).
MHICM Community	Visits recorded under DSS Identifier (stop code) #552, MHICM.
# Veterans	Number of veterans with at least one MHICM visit.
# Visits	Total MHICM (stop code 552) visits.
Mn Visits	Mean number of MHICM visits per veteran with at least one visit.
Low Intensity CM Visits	Visits recorded under DSS Identifier #564, General Case Management.
# Veterans	Number of veterans with at least one Low Intensity or General CM visit.
#Visits	Total Low Intensity or General CM (stop code 564) visits.
Mn Visits	Mean number of Low Intensity visits per veteran with at least one visit.
Facility Sum/Mean	Total number of veterans and overall mean of visits across all facilities.
VISN Sum/Mean	Total number of veterans and overall mean of visits across all VISNs.

Appendix F. Non-MHICM Case Management Services, FY 2002 (Non-MHICM Veterans)

	Source: VA Outpatient Clinic File (Austin, TX).
MHICM Community	Visits recorded under DSS Identifier (stop code) #552, MHICM.
Veterans (N)	Number of veterans with at least one MHICM visit.
# Visits	Total MHICM (stop code 552) visits.
Mn Visits	Mean number of MHICM visits per veteran with at least one visit.
General CM Visits	Visits recorded under DSS Identifier #564, General Case Management.
Veterans (N)	Number of veterans with at least one General/Low Intensity CM visit.
#Visits	Total General/Low Intensity (stop code 564) visits.
Mn Visits	Mean number of Low Intensity visits per veteran with at least one visit.
Facility Sum/Mean	Total number of veterans and overall mean of visits across all facilities.
VISN Sum/Mean	Total number of veterans and overall mean of visits across all VISNs.

Appendix G. MHICM Complex VERA Veterans, FY 2002

Source: Allocation Resource Center; NEPEC Monitoring Files.

MHICM Vets	Veterans registered in MHICM program during FY 2002.
Complex VERA Vets #	Veterans identified by ARC with 41 or more MHICM stop Code 552 Visits in FY 02. Note: Additional veterans may have previously qualified for complex class status in other patient classes (e.g. chronic mental illness) based on prior VA service use or retention criteria.
Complex VERA Vets %	Percentage of MHICM registered veterans identified as MHICM Complex VERA Class.

Appendix H. MHICM Program Monitor Trends, FY 1997-2002

Source: MHICM Performance Monitoring Reports, FY 1997-2002.

FY 1997, FY 2001, FY 2002 values are presented for select MHICM performance monitors, by monitoring domain, along with the percent change in values between 1997-2002.

Team Structure

Teams	Total MHICM teams in FY 2002 (52 teams included in FY 2002 Report).
Clients	Total veteran clients included in FY 2002 report.
Expenditure	Total program expenditures for 52 MHICM teams in FY 2002 report.
Assigned FTEE	Total FTE assigned to 52 MHICM teams in the FY 2002 report.
Filled FTEE	Total filled FTEE for 52 MHICM teams in FY 2002 report.
% Filled	Filled FTEE divided by assigned FTE.
Staff detailed away	% of filled FTE detailed part-time to other services.
Cost/Client	Unit cost per MHICM client
Client/Staff ratio	Mean client to staff ratio (caseload size). MHICM range: 7:1 to 15:1.

Client Characteristics

Age	Mean client age at entry.
Minority race / ethnicity	Percent minority race / ethnicity.
Mean hospital days yr pre	Mean hospital days per veteran in year preceding entry.
% 30+ hospital days yr pre	Percent of clients meeting minimum hospital days criterion at entry: 30+ days in prior year.
2+ yrs hospital lifetime	Percent of clients with 2 or more years of total lifetime psychiatric hospitalization.
Psychotic diagnosis	Percent clients with a primary psychiatric diagnosis with psychosis at entry.
Substance use diagnosis	Percent of clients with co-occurring substance use diagnosis at entry.
Paid employment (3yrs)	Percent of clients reporting paid employment in the three years preceding entry.
Public support income	Percent of clients receiving public support income from VA or social security at entry.

MHICM Services

Contacted weekly	Percent of clients contacted weekly or more frequently.
Contacts/week	Face-to-face contacts per week adjusted for portion of year in program.
60%+ visits community	Percent of clients with 60% or more of contacts occurring in the community.
Discharged	Percent of MHICM clients discharged during FY 2002.
Client-rated Alliance	Therapeutic alliance score reported by MHICM clients at follow-up
Team ACT Fidelity Score	Mean ACT fidelity score for MHICM teams overall.

Client Outcome (Follow-up)

Observed symptoms	Percent change in BPRS score from entry to follow-up.
Reported symptoms	Percent change in BSI score from entry to follow-up.
Quality of Life reported	Percent change in Quality of Life score from entry to follow-up.
Satisfaction MHICM (1-5)	Percent change in Client Satisfaction with MHICM at follow-up.
Change Inpt days (6mos.)	Change in psychiatric hospital days during first 6 months.
% Change Inpt days (6mo)	Percent change in psychiatric hospital days during first 6 months.

Appendix E
MHICM Case Management Services, FY 2002 (Registered MHICM Veterans*)

VISN	SITE NAME/VISN	MHICM Visits (Stop Code 552 Visits)			Low Intensity CM Visits (Stop Code 564 Visits)		
		#Veterans	#Visits	MnVisits	#Veterans	#Visits	MnVisits
1	BEDFORD	123	13,767	111.93	0	0	0.00
1	BROCKTON	67	4,821	71.96	0	0	0.00
1	TOGUS	26	1,737	66.81	0	0	0.00
1	WEST HAVEN	52	3,702	71.19	0	0	0.00
	VISN 1	268	24,027	80.47	0	0	0.00
2	ALBANY	46	4,034	87.70	0	0	0.00
2	BUFFALO	70	2,704	38.63	0	0	0.00
2	CANANDAIGUA	119	9,151	76.90	0	0	0.00
2	SYRACUSE	50	1,732	34.64	0	0	0.00
	VISN 2	285	17,621	59.47	0	0	0.00
3	BROOKLYN	79	1,787	22.62	0	0	0.00
3	MONTROSE	114	5,103	44.76	114	3	0.03
3	NEW JERSEY	86	3,832	44.56	0	0	0.00
	VISN 3	279	10,722	37.31	114	3	0.01
4	COATESVILLE	78	2,402	30.79	78	794	10.18
4	PITTSBURGH	126	4,854	38.52	0	0	0.00
	VISN 4	204	7,256	34.66	78	794	5.09
5	PERRY POINT	107	7,366	68.84	107	516	4.82
	VISN 5	107	7,366	68.84	107	516	4.82
6	SALEM	35	1,199	34.26	35	73	2.09
6	SALISBURY	44	1,144	26.00	44	376	8.55
	VISN 6	79	2,343	30.13	79	449	5.32
7	ATLANTA	64	3,700	57.81	0	0	0.00
7	AUGUSTA	71	5,063	71.31	0	0	0.00
7	TUSKEGEE	74	2,509	33.91	0	0	0.00
	VISN 7	209	11,272	54.34	0	0	0.00
8	GAINESVILLE	69	4,588	66.49	0	0	0.00
	VISN 8	69	4,588	66.49	0	0	0.00
10	CHILLICOTHE	57	3,015	52.89	57	2	0.04
10	CINCINNATI	63	2,400	38.10	0	0	0.00
10	CLEVELAND	132	9,577	72.55	132	15	0.11
10	COLUMBUS	20	572	28.60	0	0	0.00
10	DAYTON	51	2,130	41.76	0	0	0.00
10	YOUNGSTOWN	43	2,761	64.21	0	0	0.00
	VISN 10	366	20,455	49.69	189	17	0.02
11	ANN ARBOR HCS	48	3,738	77.88	0	0	0.00
11	BATTLE CREEK	82	4,533	55.28	0	0	0.00
11	DETROIT VAMC	91	2,594	28.51	0	0	0.00
	VISN 11	221	10,865	53.89	0	0	0.00

VISN	SITE NAME/VISN	MHICM Community Visits (Stop Code 552 Visits)			Low Intensity CM Visits (Stop Code 564 Visits)		
		#Veterans	#Visits	MnVisits	#Veterans	#Visits	MnVisits
12	CHICAGO WEST SIDE	70	4,025	57.50	0	0	0.00
12	MADISON	48	8,963	186.73	0	0	0.00
12	MILWAUKEE	26	2,967	114.12	0	0	0.00
12	NORTH CHICAGO	124	13,813	111.40	0	0	0.00
	VISN 12	268	29,768	117.43	0	0	0.00
16	GULF COAST	35	1,795	51.29	0	0	0.00
16	HOUSTON	56	2,626	46.89	0	0	0.00
16	LITTLE ROCK	40	2,628	65.70	40	496	12.40
	VISN 16	131	7,049	54.63	40	496	4.13
17	DALLAS	73	4,717	64.62	0	0	0.00
17	WACO	61	4,177	68.48	0	0	0.00
	VISN 17	134	8,894	66.55	0	0	0.00
19	DENVER	68	2,634	38.74	0	0	0.00
19	FORT HARRISON	17	715	42.06	0	0	0.00
19	GRAND JUNCTION	33	3,007	91.12	0	0	0.00
19	SALT LAKE CITY	58	3,719	64.12	58	131	2.26
19	SOUTHERN COLORADO	114	4,567	40.06	114	49	0.43
	VISN19	290	14,642	55.22	172	180	0.54
20	AMERICAN LAKE	49	2,575	52.55	0	0	0.00
20	BOISE	36	1,372	38.11	0	0	0.00
20	PORTLAND	73	4,872	66.74	73	36	0.49
20	SEATTLE	39	3,240	83.08	0	0	0.00
	VISN 20	197	12,059	60.12	73	36	0.12
21	PALO ALTO	33	930	28.18	0	0	0.00
21	SAN FRANCISCO	42	2,142	51.00	0	0	0.00
	VISN 21	75	3,072	39.59	0	0	0.00
22	GREATER LOS ANGELE	46	1,578	34.30	0	0	0.00
	VISN 22	46	1,578	34.30	0	0	0.00
23	KNOXVILLE	96	4,090	42.60	0	0	0.00
23	MINNEAPOLIS	71	3,563	50.18	0	0	0.00
	VISN 23	167	7,653	46.39	0	0	0.00
Facility Sum		3,288	193,864	58.96	852	2,491	2.92
VISN Mean		183	10,770	56.08	47	138	1.11
Standard Deviation		90.2	7436.0	19.9	61.8	239.6	2.0
Coefficient of Variation		0.5	0.7	0.4	1.3	1.7	1.8

* MHICM teams submitted Initial Data Forms and Follow-up monitoring data for these veterans to NEPEC.

Appendix F
Non-MHICM Case Management Services, FY 2002
(Non-MHICM Veterans at MHICM and Non-MHICM sites~)

SITE			MHICM Visits (Stop Code 552)			General CM Visits (Stop Code 564)		
VISN	CODE	SITE NAME	#Veterans	#Visits	MnVisits	#Veterans	#Visits	MnVisits
1	402	TOGUS*	47	1,342	28.55			
1	518	BEDFORD*	100	646	6.46			
1	523A5	BROCKTON VAMC*	91	2,338	25.69			
1	689	WEST HAVEN*	17	370	21.76			
		VISN 1	255	4,696	18.4	0	0	0.0
2	528	UPSTATE N.Y. HCS*	27	51	1.89			
2	528A5	CANANDAIGUA DIVISION*	72	2,812	39.06			
2	528A7	HCS UPSTATE NY V2 SYRACUS	50	335	6.70			
2	528A8	HCS UPSTATE NY V2 ALBANY	102	598	5.86			
		VISN 2	251	3,796	15.1	0	0	0.0
3	526	BRONX#	162	1,357	8.38			
3	561	EAST ORANGE	6	71	11.83			
3	561A4	LYONS	19	278	14.63			
3	620	MONTROSE	102	274	2.69	225	700	3.11
3	620GA	NEW CITY (ROCKLAND) CBOC	1	1	1.00	80	267	3.34
3	630GC	BROOKLYN CBOC	9	13	1.44			
3	632	NORTHPORT	12	19	1.58	26	292	11.23
		VISN 3	311	2,013	6.5	331	1,259	3.8
4	542	COATESVILLE	45	393	8.73	254	3,351	13.19
4	595	LEBANON				1	18	18.00
4	646A5	PITTSBURGH-HIGHLAND DR	15	38	2.53			
		VISN 4	60	431	7.2	255	3,369	13.2
5	512	BALTIMORE	40	86	2.15	87	543	6.24
5	512A5	PERRY POINT	35	335	9.57	60	2,249	37.48
5	688	WASHINGTON DC	161	218	1.35	1	1	1.00
		VISN 5	236	639	2.7	148	2,793	18.9
6	558	DURHAM				51	370	7.25
6	565	FAYETTEVILLE NC	8	33	4.13	1	2	2.00
6	590	HAMPTON	39	75	1.92	15	71	4.73
6	658	SALEM	8	13	1.63	69	205	2.97
6	659	SALISBURY	4	8	2.00	94	1,151	12.24
6	659GA	CHARLOTTE CBOC	4	21	5.25	143	1,150	8.04
		VISN 6	63	150	2.4	373	2,949	7.9
7	508	ATLANTA	69	419	6.07			
7	509A0	LENWOOD	14	21	1.50			
7	619A4	TUSKEGEE	10	65	6.50			
7	679	TUSCALOOSA	29	71	2.45	21	133	6.33
		VISN 7	122	576	4.7	21	133	6.3

SITE			MHICM Community Visits (Stop Code 552)			General CM Visits (Stop Code 564)		
VISN	CODE	SITE NAME	#Veterans	#Visits	MnVisits	#Veterans	#Visits	MnVisits
8	546	MIAMI	35	71	2.03			
8	548	W PALM BEACH				135	1,030	7.63
8	573	N FL/S GA HCS	33	137	4.15	1	14	14.00
8	672	SAN JUAN				65	81	1.25
8	673	TAMPA	32	54	1.69			
8	673BY	ORLANDO-soc	38	66	1.74			
		VISN 8	138	328	2.4	201	1,125	5.6
9	621	MOUNTAIN HOME	145	1,337	9.22			
		VISN 9	145	1,337	9.2	0	0	0.0
10	538	CHILLICOTHE	3	50	16.67	11	305	27.73
10	539	CINCINNATI	21	41	1.95			
10	541A0	CLEVELAND-BRECKSV.	51	350	6.86	7	61	8.71
10	541BZ	YOUNGSTOWN	9	21	2.33			
10	541GB	LORAIN CBOC	7	43	6.14			
10	541GD	MANSFIELD CBOC				40	380	9.50
10	541GF	541GF	2	2	1.00			
10	541GG	AKRON CBOC	6	11	1.83			
10	552	DAYTON	13	133	10.23			
10	757	COLUMBUS-IOC	6	7	1.17			
10	757GB	GROVE CITY CBOC OH	2	10	5.00			
		VISN 10	120	668	5.6	58	746	12.9
11	506	ANN ARBOR HCS	13	170	13.08			
11	515	BATTLE CREEK	41	126	3.07			
11	550	VA ILLIANA HCS DANVILLE IL				27	2,507	92.85
11	553	DETROIT VAMC	5	7	1.40			
11	610	NORTHERN INDIANA HCS	54	298	5.52			
11	610A4	NORTHERN IN HCS	9	240	26.67			
		VISN 11	122	841	6.9	27	2,507	92.9
12	537	VA CHICAGO HCS	43	144	3.35			
12	556	NORTH CHICAGO	49	207	4.22			
12	607	MADISON	14	100	7.14			
12	676	TOMAH	8	22	2.75	7	20	2.86
12	695	MILWAUKEE	10	23	2.30			
		VISN 12	124	496	4.0	7	20	2.9
15	589A4	TRUMAN VH COLUMBIA MO	34	222	6.53			
15	589A5	COLMERY-ONEIL VAMC HCS K	83	1,762	21.23			
		VISN 15	117	1,984	17.0	0	0	0.0
16	520A0	GULFPORT	9	13	1.44			
16	580	HOUSTON	7	7	1.00			
16	598A0	N. LITTLE ROCK	28	84	3.00	736	5,203	7.07
16	629	NEW ORLEANS	13	27	2.08			
		VISN 16	57	131	2.3	736	5,203	7.1

SITE			MHICM Community Visits (Stop Code 552)			General CM Visits (Stop Code 564)		
VISN	CODE	SITE NAME	#Veterans	#Visits	MnVisits	#Veterans	#Visits	MnVisits
17	549	DALLAS	5	70	14.00			
17	674A4	WACO	40	353	8.83			
		VISN 17	45	423	9.4	0	0	0.0
18	501	NEW MEXICO HCS						
18	644	PHOENIX	1	3	3.00	234	1,955	8.35
		VISN 18	1	3	3.0	234	1,955	8.4
19	554	DENVER	26	597	22.96	9	39	4.33
19	554GD	PUEBLO CBOC CO	5	27	5.40	3	3	1.00
19	554GE	COLORADO SPGS CBOC CO	11	75	6.82	5	15	3.00
19	554GG	LA JUNTA CBOC CO	3	23	7.67	3	9	3.00
19	575	GRAND JUNCTION	24	101	4.21			
19	660	SALT LAKE CITY HTHCARE	89	856	9.62	20	232	11.60
19	666	SHERIDAN	7	33	4.71			
		VISN 19	165	1,712	10.4	40	298	7.5
20	531	BOISE	17	32	1.88			
20	648	PORTLAND	10	37	3.70	18	324	18.00
20	663	PUGET SOUND HCS	22	161	7.32			
20	663A4	AMERICAN LAKE	8	23	2.88			
20	668	SPOKANE WA	11	11	1.00	110	1,623	14.75
		VISN 20	68	264	3.9	128	1,947	15.2
21	640A0	PALO ALTO-MENLO PK	6	12	2.00			
21	640BY	SAN JOSE	1	3	3.00			
21	662BU	VA COMPREHEN HMLS CTR	1	1	1.00			
		VISN 21	8	16	2.0	0	0	0.0
22	593	LAS VEGAS				90	1,481	16.46
22	600GC	LONG BEACH CBOC	1	1	1.00	99	146	1.47
22	605	LOMA LINDA	51	51	1.00			
22	691	GREATER LA HCS	56	79	1.41			
		VISN 22	108	131	1.2	189	1,627	8.6
23	437	FARGO				60	493	8.22
23	438	SIOUX FALLS				49	106	2.16
23	568A4	HOT SPRINGS				26	58	2.23
23	618	MINNEAPOLIS	8	50	6.25			
23	636	VA NEB-WESTERN IA HCS				1	1	1.00
23	636A6	VA CPHN DES MOINES IA	3	11	3.67	2	4	2.00
23	636A7	VA CPHN KNOXVILLE IA	10	10	1.00			
23	636A8	VA CPHN IOWA CITY IA	20	122	6.10			
23	656	ST CLOUD	5	6	1.20	29	510	17.59
		VISN 23	46	199	4.3	167	1,172	7.0
		ALL SUM/MEAN	2,562	20,834	8.1	2,915	27,103	9.3
		VISN Mean	122	992	6.6	139	1,291	10.4
		Standard Deviation	81.6	1220.4	4.9	176.5	1403.6	19.2
		Coefficient of Variation	0.7	1.2	0.7	1.3	1.1	1.8

~ Non-MHICM veterans were identified through VA Automated databases in Austin, Texas.

* MHICM team operational during in FY 2002.

^ MHICM team in development during FY 2002.

Team ceased operation or monitoring.

Appendix G

MHICM Complex VERA Veterans, FY 2002

This table presents numbers and proportions of veterans added to the Complex Care VERA reimbursement class due to participation in MHICM. To attain this reimbursement status, veterans must be registered in MHICM and receive 41 or more MHICM clinic stops (visits) during the fiscal year. These criteria are monitored by VHA's Allocation Resource Center (ARC) and Northeast Program Evaluation Center (NEPEC). For FY 2002, average VERA funding for a Complex Care veteran was \$41,667 per year.

VISN	Site Code	Site Name	MHICM Veterans FY 2002 #	MHICM Complex VERA Veterans #	MHICM Complex VERA Veterans %
1	518	Bedford	134	86	64.2%
1	523A5	Brockton	68	42	61.8%
1	402	Togus	26	21	80.8%
1	689	West Haven	54	36	66.7%
		VISN 1	282	185	65.6%
2	528A8	Albany	48	27	56.3%
2	528	Buffalo	72	28	38.9%
2	528A5	Canandaigua	122	87	71.3%
2	528A7	Syracuse	53	13	24.5%
		VISN 2	295	155	52.5%
3	630A4	Brooklyn	79	12	15.2%
3	620	Montrose	121	72	59.5%
3	561	New Jersey	91	42	46.2%
3	632	Northport*	105	41	39.0%
		VISN 3	396	167	42.2%
4	542	Coatesville	83	19	22.9%
4	646A5	Pittsburgh	126	52	41.3%
		VISN 4	209	71	34.0%
5	512	Baltimore*	11	0	0.0%
5	512A5	Perry Point	114	66	57.9%
5	688	Washington, DC*	15	2	13.3%
		VISN 5	140	68	48.6%
6	565	Fayetteville*	17	5	29.4%
6	590	Hampton*	47	1	2.1%
6	658	Salem	35	15	42.9%
6	659	Salisbury	46	9	19.6%
		VISN 6	145	30	20.7%

VISN	Site Code	Site Name	MHICM Veterans FY 2002 #	MHICM Complex VERA Veterans #	MHICM Complex VERA Veterans %
7	508	Atlanta	66	42	63.6%
7	509	Augusta	73	46	63.0%
7	679	Tuscaloosa*	52	25	48.1%
7	619A4	Tuskegee	83	24	28.9%
		VISN 7	274	137	50.0%
8	546	Miami*	49	43	87.8%
8	573	Gainesville	70	46	65.7%
8	673	Tampa*	94	5	5.3%
		VISN 8	213	94	44.1%
9	621	Mountain Home*	6	4	66.7%
		VISN 9	6	4	66.7%
10	538	Chillicothe	62	33	53.2%
10	539	Cincinnati	66	33	50.0%
10	541	Cleveland	144	108	75.0%
10	757	Columbus	22	4	18.2%
10	552	Dayton	55	30	54.5%
10	541B2	Youngstown	43	32	74.4%
		VISN 10	392	240	61.2%
11	506	Ann Arbor	49	24	49.0%
11	515	Battle Creek	86	46	53.5%
11	553	Detroit	93	21	22.6%
11	610	Northern Indiana*	76	38	50.0%
		VISN 11	304	129	42.4%
12	537	Chicago West Side	73	42	57.5%
12	607	Madison	48	39	81.3%
12	695	Milwaukee	26	19	73.1%
12	556	North Chicago	129	91	70.5%
12	676	Tomah*	37	26	70.3%
		VISN 12	313	217	69.3%
15	677	Topeka*	88	49	55.7%
		VISN 15	88	49	55.7%
16	520	Gulf Coast	41	12	29.3%
16	580	Houston	59	39	66.1%
16	598	Little Rock	42	23	54.8%
16	629	New Orleans*	32	8	25.0%
		VISN 16	174	82	47.1%

VISN	Site Code	Site Name	MHICM Veterans FY 2002 #	MHICM Complex VERA Veterans #	MHICM Complex VERA Veterans %
17	549	Dallas	82	49	59.8%
17	685	Waco	69	40	58.0%
		VISN 17	151	89	58.9%
18	644	Phoenix*	23	0	0.0%
		VISN 18	23	0	0.0%
19	554	Denver	77	34	44.2%
19	436	Fort Harrison	20	0	0.0%
19	575	Grand Junction	34	29	85.3%
19	660	Salt Lake City	61	41	67.2%
19	666	Sheridan*	16	4	25.0%
19	567	Southern Colorado	121	42	34.7%
		VISN 19	329	150	45.6%
20	663A4	American Lake	50	35	70.0%
20	531	Boise	38	6	15.8%
20	648	Portland	74	53	71.6%
20	663	Seattle	39	27	69.2%
20	668	Spokane*	14	8	57.1%
		VISN 20	215	129	60.0%
21	640	Palo Alto	34	5	14.7%
21	662	San Francisco	43	25	58.1%
		VISN 21	77	30	39.0%
22	691	Greater Los Angeles	48	14	29.2%
		VISN 22	48	14	29.2%
23	636A8	Iowa City*	27	1	3.7%
23	636A7	Knoxville	100	54	54.0%
23	618	Minneapolis	74	45	60.8%
23	656	St. Cloud*	30	7	23.3%
		VISN 23	231	107	46.3%
ALL SUM/MEAN			4,305	2,147	49.9%
VISN Mean			205	102	46.6%
Standard Deviation			112.8	67.2	16.0%
Coefficient of Variation			0.6	0.7	0.3

^MHICM veterans with 41 or more MHICM visits (Clinic Stop 552) during FY 2002.

*Team had insufficient outcome data to be included in this report.

Source: Allocation Resource Center; NEPEC Monitoring files.

Appendix H

MHICM Program Monitor Trends, FY 1997-2002

<u>Team Structure</u>	1997	2001	2002	% change 2002-1997
Teams*	40	55	72	80%
Clients^	2,021	3,189	3,566	76%
Expenditures	12.7M	18.4M	20.0M	57%
Assigned FTEE	246	289	315	28%
Filled FTEE	221	251	283	28%
% Filled	90%	87%	90%	0%
Staff detailed away PT (sites)	8%	25%	21%	163%
Cost/Client	\$6,049	\$5,777	\$5,607	-7%
Client/Staff ratio	12.3	13.2	12.9	5%

<u>Client Characteristics (Entry)</u>	1997	2001	2002	% change 2002-1997
Age	49.2	49.8	49.9	1%
Minority race / ethnicity	29.1%	32.1%	32.4%	11%
Mean hospital days in year pre	135.4	99.9	92.3	-32%
30+ Hospital days in year pre	91.3%	78.6%	76.9%	-16%
2+ yrs Hospitalized in lifetime	57.9%	56.9%	48.2%	-17%
Psychotic diagnosis	87.0%	90.7%	90.7%	4%
Substance use diagnosis	25%	20%	20%	-20%
Paid employment (3yrs pre)	12.5%	11.3	11.5%	-8%
Public support income	90.6%	94.1%	94.8%	5%

<u>MHICM Services</u>	1997	2001	2002	% change 2002-1997
Contacted weekly	85%	81%	87%	2%
Contacts/week	1.6	1.3	1.4	-13%
60% + contacts in community	78%	84%	88%	13%
Discharged	16%	14%	13%	-19%
Client-rated Alliance	31.4	39.2	39.4	25%
Team ACT Fidelity Score	4.0	3.8	4.0	0%

<u>Client Outcome (Follow-up)</u>	1997	2001	2002	% change 2002-1997
BPRS Observed symptoms	-7%	-10%	-10%	43%
BSI Reported symptoms	-6%	-10%	-11%	83%
Quality of Life reported	8%	10%	10%	25%
Satisfaction w/ MHICM (1-5)	3.7	3.7	3.7	0%
Change Inpatient days (6mos.)	-50	-42	-35	-30%
% Change Inpatient days (6mos.)	-64%	-73%	-72%	13%

* 52 of 72 teams in operation had sufficient data to be included in the FY 2002 report.

Remaining values for this table reflect those sites.